

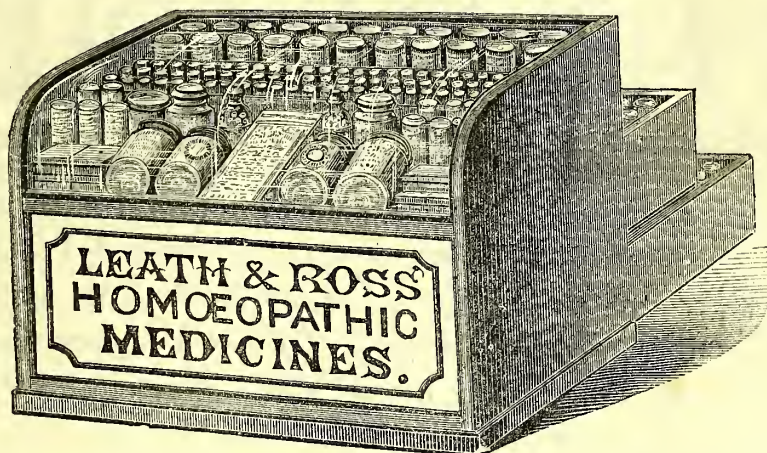
# LEATH & ROSS'S HOMŒOPATHIC PHARMACIES

9 VERE STREET, W.,  
And 5 ST. PAUL'S CHURCHYARD, E.C., LONDON.

OUR £10 10s. AGENTS' SHOW CASE.

Contents realise £17 17s. 8d.

DIMENSIONS.—Length, 18 in.;  
Breadth, 13 in.; Height, 13 in.



DESCRIPTION.—A Handsome Bent Glass Case, with three drawers, the contents of top drawer visible, the Pilules and Tinctures arranged in the other two in alphabetical order.

## WHOLESALE PRICE LIST OF MEDICINES PUT UP READY FOR SALE.

### GLOBULES or PILULES—

Sixpenny Tubes	...	...	2 9	per dozen.
Ninepenny	„	...	4 3	„
Shilling	„	...	5/-	„

### TINCTURES or TRITURATIONS—

Sixpenny Bottles	...	...	2 9	per dozen.
Ninepenny	„	...	4 3	„
Shilling	„	...	5/-	„

### PROPRIETARY ARTICLES.

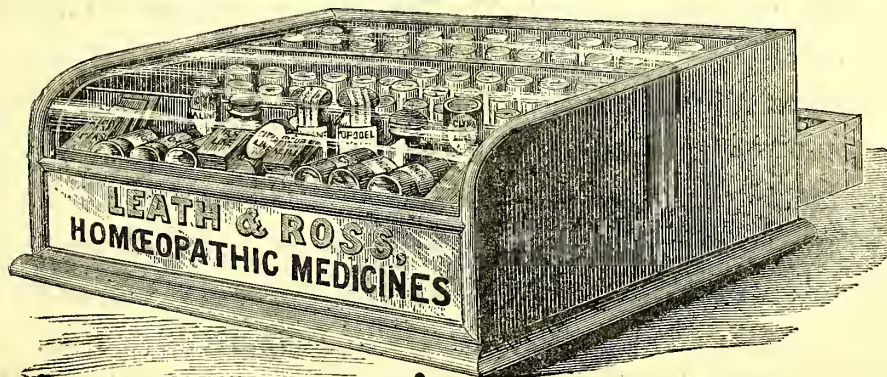
Neuraline	...	...	1 1 1/2	Berberine	...	...	1 1 1/2	Linimentum Auricularis	...	1 1 1/2
Glykalline	...	...	1 1 1/2	Chilblain Liniment	...	...	1 1 1/2	Bryonia Liniment	...	1 1 1/2
Phospho-muriate of Quinine	1 1 1/2	Odontagie Essence	...	...	1 1 1/2	Corn Eradicator	...	...	1 1 1/2	

All the above Proprietary Articles, 9/6 per dozen.

OUR £6 6s. AGENTS' SHOW CASE.

Contents realise £10 18s. 3d.

DIMENSIONS.—Length, 20 in.;  
Breadth, 15 3/4; Height, 9 1/2 in.



DESCRIPTION.—A Handsome Bent Glass Case, with two drawers, the contents of top drawer visible, the Pilules and Tinctures arranged in alphabetical order.



# 14 PRIZE MEDALS,

Including Highest Awards at New York, 1874; Philadelphia, 1876; Paris, 1878; International Medical (London), 1881; and the Healtheries (London), 1884. The only article which has received any official recognition anywhere.

PETROLEUM

# "VASELINE"

JELLY.

**"VASELINE"** differs from the imitations offered as substitutes, in that it is made from a different base (American Crude Petroleum) and by a different process, and no acids are used in its manufacture. It is not a distillate, contains no paraffine, is not crystalline in its structure, and does not separate upon cooling, after being heated indefinitely. It is simply a concentrated Jelly of Petroleum, purified by repeated filtrations through bone black.

To compare "Vaseline" with a *distillate* of Petroleum is equivalent to testing the quality of butter by experimenting with cheese.

**CAUTION.**—The word **"VASELINE"** was originated by, and is registered all over the world as the Trade Mark of, this Company for their Emollient, Remedial, Toilet, and other preparations of Petroleum; and the Trade are cautioned against using the said word in connection with any goods not manufactured by us.

Reference is asked to notice of judgment obtained by this Company against infringers of their Trade Word, "Vaseline," published in THE CHEMIST AND DRUGGIST of December 15, 1884, and previously.

Also to the Circular in January issue (facing page 164), which gives the exact style of the genuine packages of the Medicinal, Toilet, and Household Preparations.

## CHESEBROUGH MANUFACTURING CO. (NEW YORK)

41 HOLBORN VIADUCT, LONDON, E.C.

SOLE MANUFACTURERS AND PROPRIETORS OF THE "VASELINE" PREPARATIONS.

# FLETCHERS' Concentrated Liquors.

Universally acknowledged by Pharmacists who have them in use to be the most Simple, Efficient, and Economical of all methods for preparing Syrups.

## LIQUOR Ferri Iodidi.

*EACH* fluid drachm contains 34.4 grains of Iodide of Iron.

*ONE* volume added to seven volumes of *Syrupus*, *B.P.*, forms Syr. Ferri Iodidi of full Pharmacopœia strength.

## Liquor Ferri et Quiniæ et Strychniæ Phosph.

*EACH* fluid drachm contains 4 grains of Phosphate of Iron, 4 grains of Phosphate of Quinia, and  $\frac{1}{8}$  grain of Strychnia.

*ONE* volume added to three volumes of *Syrupus*, *B.P.*, forms Easton's Syrup.

## LIQUOR Calcis Lactophosph.

*EACH* fluid drachm contains 8 grains of anhydrous Calcium Phosphate combined with Lactic Acid.

*ONE* volume added to seven volumes of *Syrupus*, *B.P.*, forms Syr. Calcis Lactophosph.

## LIQUOR Ferri Phosph.

*EACH* fluid drachm contains 8 grains of Ferrous Phosphate.

*ONE* volume added to seven volumes of *Syrupus*, *B.P.*, forms Syr. Ferri Phosph.

## LIQUOR Ferri Phosph. Comp.

*EACH* fluid drachm contains, in addition to the alkaline Phosphates, 4 grains of Phosphate of Iron, and 8 grains of Phosphate of Calcium, dissolved in pure Phosphoric Acid.

*ONE* volume added to three volumes of *Syrupus*, *B.P.*, forms "Chemical Food."

## LIQUOR Ferri Hypophosph.

*EACH* fluid drachm contains 8 grains of Hypophosphite of Iron.

*ONE* volume added to seven volumes of *Syrupus*, *B.P.*, forms Syr. Ferri Hypophosph.

On receipt of a Post Card, trial samples will be sent, carriage paid, to any address.

Detailed List, containing prices and particulars of upwards of thirty different combinations, post free on application.

FLETCHER, FLETCHER & STEVENSON,  
Holloway, London, N.



# THE EDINBURGH COFFEE ESSENCES.

**INVIGORATING, DELICIOUS, ECONOMICAL, AND CONVENIENT.**

## SYMINGTON'S PURE COFFEE ESSENCE.



This Essence is guaranteed to contain all the soluble constituents of COFFEE (the only addition being Pure Sugar), the GRATEFUL AROMA of the freshly roasted Beans being retained by their Special Process of manufacture.

*The New 1s. Bottle makes 30 Cups of Coffee, equal to that made—in the most approved manner—direct from the finest Beans.*

SYMINGTON'S PURE COFFEE ESSENCE is an almost certain cure for Nervous Headaches, etc.

*A Sample Bottle will be forwarded free by Post to any Chemist on receipt of Card.*

## SYMINGTON'S DANDELION COFFEE ESSENCE

Is Specially adapted for the Dyspeptic and Bilious who cannot take ordinary Coffee.

This Beverage combines the Medicinal virtues of Taraxacum with the refreshing properties of Coffee.

**The Shilling Bottle makes 25 Cups of Coffee.**

**Extract from the LANCET.**

"The Essence of Dandelion Coffee is really an excellent substitute for coffee, and will, we think, be an advantage to many bilious and dyspeptic patients."

**Extract from the BRITISH MEDICAL JOURNAL.**

"Symington & Co.'s Coffee Essences have a standard reputation, and possess great merit. The Coffee Essence must be prepared *in vacuo* at a low temperature, as the aroma of the Coffee is well preserved; in its essential qualities it does not differ in any way from a cup of Coffee made in the ordinary way."



**Forty large Cups of delicious Coffee made without trouble, for One Shilling, by using**



## SYMINGTON'S ESSENCE OF COFFEE AND CHICORY

*Prepared from the finest Coffee, with a suitable proportion of Chicory, which is generally preferred.*

The great and increasing demand for this article warrants the assertion that it is the

**COFFEE FOR THE MILLION.**

**THOS. SYMINGTON & CO., CHEMISTS, EDINBURGH.**

LONDON OFFICE—11 CULLUM STREET, E.C.



# SQUIRE'S PATENTED MALT & COOKED FARINACEOUS FOOD FOR INFANTS.

PRIZE MEDAL—INTERNATIONAL HEALTH EXHIBITION.

This will be found one of the most nutritious and easily digested Foods for Infants. It is prepared from the best wheaten flour, treated with malt in solution, whereby the food becomes very largely self-digestive. This process includes all the soluble and digestive properties of the malt, and avoids the introduction of the husk, which is directed by Professor Liebig to be strained out when foods are made with ground malt.

## SQUIRE'S CHEMICAL FOOD.

It is a complex solution of Iron, Lime, Soda, and Potash, in a Phosphoric Syrup. The Iron is in the Ferrous condition. This Preparation, formerly known as PARRISH'S CHEMICAL FOOD, has been purchased by Messrs. SQUIRE. Each bottle of the genuine Preparation is secured by their seal, and the cases bear their Registered Trade Mark.

## SQUIRE'S SUPER-DIASTASIC MALT EXTRACT.

EXTRACT BYNES (SQUIRE).

This Extract is prepared from the finest Malted Barley, at a very low temperature, *in vacuo*, by a special process, under the immediate supervision of one of the Firm. It possesses the highest digestive power of any Extract of Malt in the Market. A copy of the comparative examinations of the various kinds reported in the Medical Times, June 21, 1884, pages 847 and 848, will be forwarded to any Physician on application. It contains only the soluble constituents of good Malt.

TWO PRIZE MEDALS—National Health Society's Exhibition, 1883; International Health Exhibition, 1884.

SQUIRE, Chemist on the Establishment in Ordinary to the Queen, 413 OXFORD STREET, LONDON.

# RESPIRATORS !!

		£	s.	d.
CLOUD, per doz.	...	0	8	0
COLLIER'S, per doz., No. 0, 18/-; No. 1, 24/-; No. 2, 30/-; No. 3, 42/-; No. 4, 48/-; No. 5, 36/-; No. 6		2	14	0
CORK, per doz.	...	0	6	0
COTTON WOOL, per doz.	...	3	0	0
MAW'S ÆTHEREON, per doz.	...	3	4	0
MAW'S MICRO-ÆTHEREON, per doz.	...	3	4	0
MAW'S INCORRODIBLE METALLIC, per doz., No. 1, 8/-; 1A, 12/-; 2, 21/-; 2A, 18/-; 3, 30/-; 3A, 24/-; 4, 32/-; 5, 40/-; 6, 45/-; 7, 50/-; 8, 56/-; Dwarf, No. 1, 24/-; 2, 30/-; 3,		2	0	0
MAW'S SCARF, each	...	0	8	0
NIGHTINGALE'S INVISIBLE, each	No. 1, 3/8; No. 2, 7/-; No. 3,	0	14	0
ROOFF'S, per doz.	...	3	3	0
ROOFF'S ORINASAL CHARCOAL, for preventing the Inhalation of Deleterious Vapours and Poisonous Powders in Chemical and Manufacturing Establishments	...	0	5	6

S. MAW, SON & THOMPSON,  
LONDON.





# LEO'S

## COMPRESSED Chlorate of Potash.

Price to the Trade,  $\frac{2}{6}$  PER DOZEN, less the usual discount. Supplied by all Wholesale Druggists. A sample dozen boxes will be sent, postage paid, to any Chemist, on receipt of  $\frac{2}{6}$  in stamps.

These are the best, and are put up in the most elegant style of any cheap compressed goods in the market.

SOLE WHOLESALE AGENTS:  
BARCLAY & SONS, 95, Farringdon Street, London, E.C.

## H. NEWTON & CO.,

MANUFACTURERS AND EXPORTERS OF

# PHOTOGRAPHIC APPARATUS AND CHEMICALS,

5 SOUTH JOHN STREET, LIVERPOOL, ENGLAND.

**NEWTON'S NEW "ORTHOPANACTNIC" LENS,** acknowledged to be the most perfect Lens made, for Landscapes, Portraits, Architecture, Groups, and Copying. Cash returned, if Lens is not perfectly satisfactory.

**NEWTON'S NEW PORTABLE CAMERA,** being the lightest, strongest, and most convenient Camera in the market, from 3 inches to 17 inches focus, rack adjustment, rising and falling front, swing back, &c. Price, with 3 double dark slides, £8 8s.

**NEWTON'S "MULTUM-IN-PARVO" TRIPOD STAND** (Sharp's Patent), simply marvellous, packs into small sliding case, 5 x 6 x 2 inches, when erected will support a weight of 56 lbs. Price 25s.

**NEWTON'S NEW WASHING APPARATUS,** will remove every trace of Hypo from a dozen plates or 100 prints in an hour, constructed on an entirely new principle. Prices,  $\frac{1}{2}$ , 15s.;  $\frac{1}{4}$ , 21s.

**NEWTON'S NEW HEADREST for AMATEURS,** can be attached to any chair. Nickel plated, handsome in appearance, and very portable. Price 12s. 6d.

**NEWTON'S "TOURIST" OUTFIT,** comprising handsome Mahogany Bellows-body Camera, Achromatic Lens, and Folding Tripod Stand, for plates  $6\frac{1}{2} \times 4\frac{1}{2}$ , 45s.; ditto for plates  $4\frac{1}{2} \times 3\frac{1}{2}$ , 31s. 6d.

**NEWTON'S "TOURIST" RUBY LAMP,** very portable, for Bicyclists, &c., folds into one inch. Price 3s.

**NEWTON'S PERFECTION DRY PLATES** are unequalled for rapidity and general excellence.  $\frac{1}{4}$  1s. 6d.,  $\frac{1}{2}$  3s. 6d., doz.

All articles connected with Photography at **LOWEST POSSIBLE PRICES** consistent with high-class work. All the Latest Novelties.

H. NEWTON & CO., 5 SOUTH JOHN STREET, LIVERPOOL.

N.B.—Wholesale Terms on application.

# ROBINSON'S ORANGE WINE

(VIN. AURANTII, B.P.)

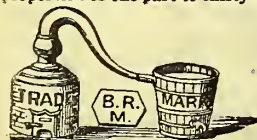
Specialty prepared for Quinine Wine, does not deposit, will keep good in any Climate, and well adapted for Export Trade. Supplied in Casks containing 9, 18, 30, 60, or 120 Gallons. Terms on application.

## THE UNIVERSAL CORN AND WART PENCIL.

1 doz. mounted on a handsome Illustrated Show-Card, Retail, 6d. each; Wholesale, 3s. 6d. per doz. It is especially adapted for Export Trade, and may be safely sent to the hottest climates, as each glass tube is hermetically sealed and enclosed in a cardboard case.

N.B.—The above is exempt from Stamp Duty by permission of the Board of Inland Revenue.

**CONCENTRATED WATERS.**—One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopoeia, and free from all Chemical impurity. They are prepared to supply a want long felt by Chemists and Medical Men, and by their use a fresh supply of any of the Medicinal Waters may be obtained at a moment's notice. They are not affected by age in any climate. N.B.—Used in the proportion of one part to thirty-two of water they represent the Medicinal Waters of the United States Pharmacopoeia.



	Per lb.		Per lb.		Per lb.		Per lb.
Aqua Anethi, Concent.	4/0	Aqua Cinnam. Ver. Concent.	6/0	Aqua Feniculi, Concent.	4/0	Aqua Pimentæ, Concent.	4/0
" Anisi,	4/0	" Cassia	4/0	" Mentli. Flp.	4/0	" Rosæ	8/6
" Camphoræ	4/0	" Flor. Aurant.	8/6	" " Ang. Con.	6/0	" Rosæ Virgin	10/6
" Carui	4/0	" Flor. Sambuci	8/6	" " Viridi.	4/0		

The above are put up in Bottles of  $\frac{1}{4}$  lb. or  $\frac{1}{2}$  lb. and upwards, each of which has the Inventor's Protection Label over cork.

Wholesale Agents—Hearson & Co., Maw, Son, & Thompson, Lynch & Co., London; Evans, Sons & Co., Liverpool; Woolley, Manchester; Bewley & Draper, Hunt & Co., Dublin; Glasgow Apothecaries' Co., Hatrick & Co., Glasgow; J. Mackay & Co., T. & H. Smith & Co., Edinburgh; Foggitt, Thirk, Goodall & Co., Leeds; J. Richardson & Co., Leicester; Slinger & Son, York; McKesson & Robbins, New York. Special terms for large quantities may be had from

B. ROBINSON, Distiller and Brewer of British Wines, Church St., Pendleton, Manchester.

Agents  
for Liverpool & Co.  
4 Bury St.  
H. May and Co.

Sold by Barclay & Sons  
Barclay & Sons  
76 Farringdon St.



# BARCLAY & SONS,

95 Farringdon Street,  
LONDON.



## AGENTS FOR CHOCOLAT ROUSSEAU

A LA POUDRE DE VIANDE.

This nutritious food is a combination of Chocolate and Meat Powder, in which the taste of the latter cannot be detected. The flavour is that of a delicious Chocolate.

This article, which is prepared by a French firm of high standing, is most strongly recommended by the Medical Faculty of France and is used in the Hospitals.

It represents exactly 80 per cent. of its weight of muscles of fresh beef; it is therefore a very strengthening food for invalids and children, and most convenient for persons travelling.

It being so palatable, invalids and children will require little inducement to take this most wholesome and nutritious food

It can be eaten in tablets or taken as a beverage with boiling milk and water.

Sold in Boxes containing 10 Tablets, price 2/-, 19/6 per dozen, net.

## CONOR'S GLUTEN PREPARATIONS.

	Retail	Per doz. Boxes, net
CONOR'S GLUTEN BREAD (various forms) and Biscuits, Large Box .....	4/-	34/-
Small Box .....	2/-	17/-
CONOR'S CHOCOLATE, combined with pure English Glycerine, Box of 500 gr. (nearly 18 oz.).....	5/-	41/-
CONOR'S CHOCOLATE, with Gluten and Vanille, unsweetened, the kilo- gramme (2 lb. 3 oz.).....	6/6	65/-
CONOR'S GLUTEN FLOUR, Box of 500 gr.	2/-	17/-
CONOR'S GLUTEN GRANULES, Box of 250 gr. ....	1/-	7/-
CONOR'S GLUTEINE, a new Restorative Food, Box of 500 gr. ....	2/6	20/6
CONOR'S MACARONI with Gluten, Box of 500 gr. ....	2/6	20/6

	Retail	Per doz. Boxes, net
CONOR'S MIGNONNETTES with Gluten, the kilogramme.....	6/6	65/-
Box of 500 gr. ....	4/-	34/-
CONOR'S PATES d'ITALIE with Gluten, Box of 500 gr. ....	2/6	20/6
CONOR'S SEMOULE with Gluten, Box of 250 gr. ....	1/-	6/6
CONOR'S VERMICELLE with Gluten, Box of 500 gr. ....	2/3	19/-
CONOR'S GLUTEN CAKES, unsweetened, for Dessert, 500 gr. ....	5/6	50/-
Ditto, ditto, 250 gr. ....	3/6	29/-
CONOR'S APPARATUS FOR ANALYS- ING URINE .....	each 20/-	net 14/-

*Those Chemists not having an account with us can obtain the above  
through their usual Houses.*

**BARCLAY & SONS, 95 FARRINGDON STREET, LONDON.**

# CONDY'S FLUID—IMITATIONS.

In the High Court of Justice (CHANCERY DIVISION).

**CONDY & MITCHELL, Limited,**

v.

**TIMOTHY WHITE,**

OF LANDPORT AND PORTSMOUTH.

## **APOLOGY.**

19th November, 1885.

I, TIMOTHY WHITE, of PORTSMOUTH, in the County of Hants, Chemist and Druggist, having unintentionally and in ignorance of the legal rights of the above-named plaintiffs, and having been misled by certain printers of labels placed upon bottles containing a Disinfecting Fluid prepared by me, labels which in colour and wording are similar to those in use by the above-named plaintiffs on bottles containing Condy's Fluid, hereby express my regret, and have consented to a perpetual Injunction being granted in the above action, with costs, and a nominal sum for damages, against me.

Witness—

J. SEYMOUR SALAMAN,

*Solicitor, Trade Mark Protection Society.*

*Dated this 19th day of November, 1885,*

**TIMOTHY WHITE.**

VIDE ALSO

CONDY & MITCHELL, Limited, v. ROBERT SUMNER & CO.

CONDY & MITCHELL, Limited, v. M. T. FLINDERS.

CONDY & MITCHELL, Limited, v. COLDWELL & CO.

In which PERPETUAL INJUNCTIONS, with COSTS and DAMAGES, were obtained.

*My clients, Messrs. CONDY & MITCHELL, Limited, SOLE Proprietors and Manufacturers of CONDY'S FLUID, have instructed me to take summary proceedings against all persons in ANY WAY infringing their well-known and DULY REGISTERED TRADE MARK LABELS.*

J. SEYMOUR SALAMAN,

*Solicitor, Trade Mark Protection Society,*

3 KING STREET, LONDON, E.C.



# ENO'S FRUIT SALT

## In Equity AT THE ANTIPODES.

SYDNEY, NEW SOUTH WALES,  
JULY 2, 1885.

In Equity.—(*Before his Honour the PRIMARY JUDGE.*)  
**ENO v. HOGG.**

Another case of commercial piracy was disposed of by Sir William Manning on Tuesday last. Mr. S. P. Hogg, having been proved guilty of infringing the trade-mark of Mr. J. C. Eno, of Fruit Salt renown, was assessed in damages to the tune of £100. This is the third case of the kind that has been before the Court during the past few months. Eno was the plaintiff, and Davies & Co., of Goulburn, were the defendants. The charge was that the defendants had infringed the trade-mark of the plaintiff in respect of his preparation known as Fruit Salt. The evidence disclosed the fact that the plaintiff's bottles and labels had been closely imitated by the defendants, and the Judge declared this imitation was the result of a deliberate intention to defraud. The defence was a practical admission of fraud, and the fact that it was set up is itself a sufficient justification for the sentence of the Judge. The defendant pleaded that the term "Fruit Salt" was applied to several other manufactures besides the one for which he was responsible, and that his commodity was so dissimilar to that of the plaintiff that there could have

been no deception. Paraphrased, the former part of the plea says:—Other people do what I am accused of having done, therefore I ought not to be punished. Fortunately that kind of reasoning has no weight in the Supreme Court. The latter part of the plea was contradicted by the production of packages of the defendant's commodity. These did not exactly resemble the plaintiff's preparations, but there were many points of similarity between the two. As the Judge remarked, "the imitation was not so palpable as in some other cases, yet it had gone as far as the imitator dared." The suspicion is created that when the defendant included the words "Fruit Salt" in the name of the commodity which he manufactured for sale, his intention was to deceive. Frauds of the kind referred to are common, and the public of course suffer greatly thereby. The expressed determination of Sir William Manning to severely punish every person who may be proved guilty before him of having committed such offences will, however, have the effect of causing manufacturers whose trade-marks are being infringed to prosecute the pirates, and thus the evil, we may hope, will be made to cease.—*Sydney Morning Herald*, July 2.

**SUCCESS IN LIFE**—"A new invention is brought before the public and commands success. A score of abominable imitations are immediately introduced by the unscrupulous, who, in copying the original closely enough to deceive the public, and yet not so exactly as to infringe upon legal rights, exercise an ingenuity that, employed in an original channel, could not fail to secure reputation and profit."—ADAMS.

**CAUTION—Legal Rights are protected in every Civilised Country.**

**SOLD BY ALL CHEMISTS.**

**DIRECTIONS IN SIXTEEN LANGUAGES HOW TO PREVENT DISEASE.**

PREPARED ONLY AT

**ENO'S FRUIT SALT WORKS, HATCHAM, LONDON, S.E.**

BY J. C. ENO'S PATENT.



# HARVEY'S WORLD-FAMED TOOTHACHE PENCILS, AND HARVEY'S CORN AND WART PENCILS.

## Notice to the Trade.

LONDON, November 27, 1885.

Gentlemen,

I beg to inform you that I have disposed of the proprietorship of both the above-mentioned Pencils, together with all Trade Marks, Recipes, &c., connected with the same, to

**Messrs. HOCKIN, WILSON & CO.,**

38 Duke Street, Manchester Square,  
LONDON, W.,

by whom all orders will in future be executed.

Thanking you sincerely for past favours, and soliciting a continuance of the same for Messrs. Hockin, Wilson & Co.,

I remain, yours truly,

**J. J. HARVEY.**

38 DUKE STREET,  
MANCHESTER SQUARE,  
LONDON, W.

November 27, 1885.

Gentlemen,

We beg to call your attention to accompanying letter, by which you will see that we have acquired the Proprietorship of

# HARVEY'S Toothache and Corn Pencils,

and all Trade Marks connected with the same.

They will be prepared with the same care as heretofore, and prices will remain unchanged.

Soliciting your orders, which shall receive our prompt and careful attention,

We are, Gentlemen,

Yours respectfully,

**HOCKIN, WILSON & CO.**

"ACME" BRAND (Registered No. 38537).

# MENTHOL CONES,

GUARANTEED PURE JAPAN MENTHOL.

- 92. Nickel Screw - capped Bottle, 3s. 4d. doz., 6d. size.
- 90. Nickel Screw - capped Bottle, 5s. 9d. doz., 1s. size.
- 89. Nickel Screw - capped Bottle, 7s. 9d. doz., 1s. 6d. size.
- 88. Hardwood Boxes, Pedestal Shape, 3s. 6d. doz., 1s. size.
- 161. Boxwood Boxes, Acorn Shape, Screw Lids, 5s. doz., 1s. size.
- 162. Boxwood Boxes, Pedestal Shape, Screw Lids, 5s. doz., 1s. size.

Cones supplied loose at lowest prices.  
5 per cent. discount for cash with order.  
In ordering please quote numbers to avoid mistake.



- 163. Vegetable Ivory, Acorn Shape, Screw Lids, 6s. doz., 1s. size.
- 201. Boxwood Boxes, Barrel Shape, 5s. 6d. doz., 1s. size.
- 202. Boxwood Boxes, Bullet Shape, 5s. doz., 1s. size.
- 203. Boxwood Boxes, Cone Shape, 5s. doz., 1s. size.
- 200. The new 6d. Pedestal Shape Cone, in glass-fronted Boxes, very handsomely labelled, as block, forming a good show case.

Hanging Glass-fronted Boxes (like 200), with Nos. 161, 162, 163, 201, 202, and 203.

In Indenting through Merchants and the Wholesale Trade please state distinctly, "ACME" BRAND, "HARVEY'S."

MANUFACTURED SOLELY BY

**HOCKIN, WILSON & CO., 38 Duke Street, Manchester Square, W.**



# NOTICE AND CAUTION!

In the High Court of Justice, before Mr. Justice Chitty.

## IMITATIONS OF **PEARS' SOAP.**

THE TRADE MARK PROTECTION SOCIETY hereby give notice that they have received instructions from Messrs. **PEARS** to prosecute all persons manufacturing, selling, or offering for sale colourable imitations of their goods.

*FOUR ACTIONS* have been commenced, and **FOUR PERPETUAL INJUNCTIONS WITH ALL COSTS,** OBTAINED against dealers in the City of London, at Chelsea, Birmingham, and Croydon.

INFORMATION in respect of any *IMITATION* being offered will be much esteemed and treated as *CONFIDENTIAL*, and may be sent to the *TRADE MARK PROTECTION SOCIETY*, or to Messrs. **PEARS** direct.

The Trade Mark Protection Society,  
KING STREET,  
CHEAPSIDE, E.C.

# HAYWOOD'S CHRISTMAS PRESENTS.

## THE CHRISTMAS COSY MUFFLER.

This MUFFLER is knitted from the best quality natural Grey, White, Scarlet, Shetland, and Pine Wool, and protects the entire surface of the nose, mouth, ears, throat, and chest. It has a pocket to hold a Respirator, which is not seen from the outside, and is an INVALUABLE COMPANION to the EVENING PARTY GUEST, TRAVELLER by ROAD, RAIL, or WATER and FREQUENTERS of EVENING ENTERTAINMENTS.

## THE CHRISTMAS COSY SLIPPER.

These SLIPPERS, made from double thickness real LAMBSKIN, with the soft wool inside and outside, are most WARM and COMFORTABLE for regular wear and for INVALIDS' use.

## THE CHRISTMAS COSY MAGNETIC FOOT WARMER.

These MAGNETIC FOOT WARMERS are placed in the boots, and by magnetic action generate heat and promote an agreeable glow in the feet; a very USEFUL TRAVELLING COMPANION, and for anyone WHO SUFFERS FROM COLD FEET.

## THE CHRISTMAS COSY CHAMOIS LEATHER SOCKS.

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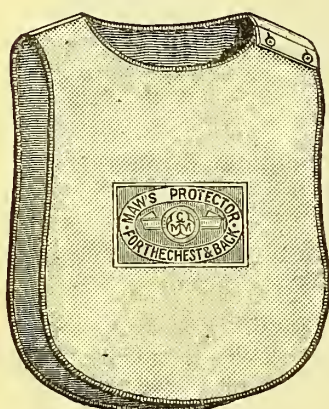


FIG. 3.

Double, for the Chest and Back.

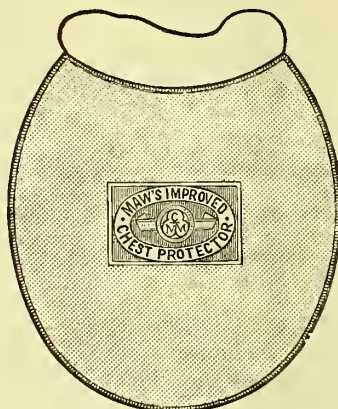


FIG. 4.

Single, Chest Protector.



FIG. 5.

Vest, a Shield for the Lungs.

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Fig. 3.	Double	...	...	per doz.	20/	26/	32/	39/
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Fig. 4.	Single...	...	...	"	9/	11/6	13/6	16/
	Ditto, perforated...	...	...	"	11/	14/	16/	19/
Fig. 5.	Vests	"	...	"	27/	34/	42/	51/

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Fig. 4.	Single, best...	...	"		7/6	9/6	11/	14/	20/
	Ditto, second	...	"		6/6	8/	9/6	12/	16/
Fig. 5.	Vests, Scarlet	...	"		17/	22/	27/	33/	40/

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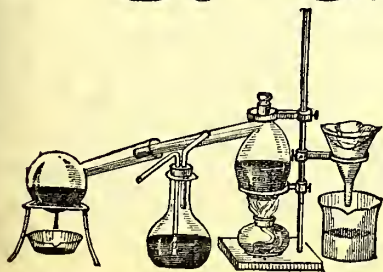
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DON'T ORDER BEFORE SEEING BOWERS' TOILETTE GUIDE AND CALENDAR—CHEAP, GOOD, USEFUL.

*A liberal discount to large consumers. Carriage paid on parcels of 40s. and upwards.*

## J. ROSE, Commercial and General PRINTER,

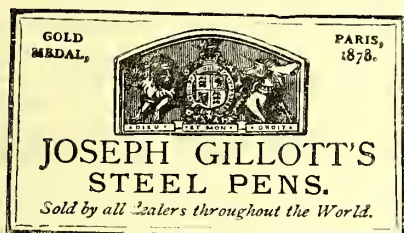
NORTH CLIFF WORKS, KIRTON - IN - LINDSEY, R.S.O.,

INVITES ATTENTION TO

5,000 Memorandum Forms or Statements, 8 × 5 in., rom 17s. 6d.; ruling 6d. per 1,000 extra. 5,000 Bill Heads, same size or assorted equal, 17s. 6d.; ruling 6d. per 1,000 extra. 5,000 Cream Laid Envelopes, Commercial Size, printed flap, 18s. 6d.; better qualities, 6d., 1s., and 1s. 6d. per 1,000 extra. 5,000 Direction Tallies, printed, size 4 × 1½, 17s. 6d. 5,000 Gunned Direction Labels, printed, size 4½ × 3, 17s. 6d.

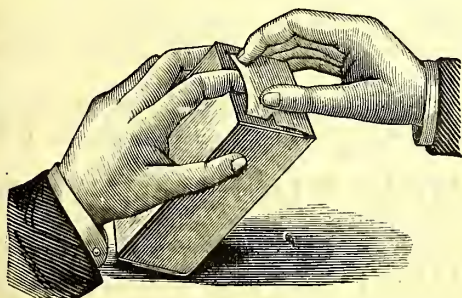
Seed, Powder, and Cash Envelopes and Druggists' Bags of every description, plain and printed, not to be surpassed by any house in the trade. Counter and Show Bills, Baking Powder, Epsom Salt, and Anti-Smut Wrappers. Paraffin, Benzoline, Oil, and General Labels, in choice styles and at lowest quotations. Prescription and Recipe Envelopes in all qualities and in every style of printing. Trade Catalogues, Prices Current, Business Circulars, and Ornamental Advertising Books. Specimens and Estimates free.

A liberal discount to large consumers. Carriage paid on parcels of 40s. and upwards.



## AUG. BREHMER'S PATENT FOLDING CARDBOARD BOXES,

Especially suitable and highly recommended for packing up Proprietary Goods, Cereals, Foods, Patent Medicines, &c.



Superior Paper Wrappers in neatness of appearance and strength, and therefore affording great protection to bottles, &c.

ESTIMATES AND SAMPLES FREE ON APPLICATION.

Steam factory—3 & 4 Moor Lane, Fore Street, London, E.C.

## Silverlock's NOW READY.

SACHET, PRESENTATION, AND CARD

Samples  
Post Free.  
**Almanacks**  
FOR 1886.

H. SILVERLOCK, 92, BLACKFRIARS ROAD, LONDON, S.E.

**CHEMISTS' LABELS,**  
TO ORDER AND IN STOCK.

**THE BASKERVILLE PRINTING CO., Lim.,**

4 HARRINGTON STREET, LIVERPOOL,

IN ADDITION TO THE ABOVE, ARE

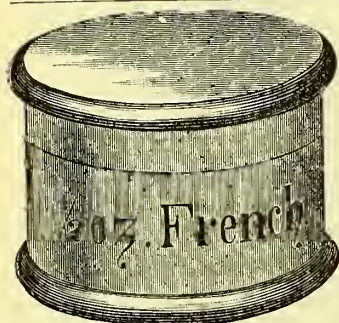
**ECONOMIC SHOWCARD PRINTERS.**

A Sample and Price of this Speciality will be sent on application.

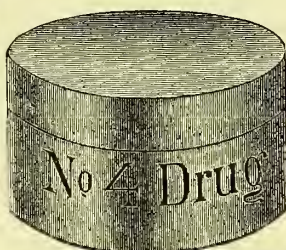


# ESTES' AMERICAN DRUGGISTS' & CHEMISTS' TURNED WOODEN BOXES,

PILL, POWDER, & SALVE BOXES.  
FINELY-FINISHED FACE AND TOOTH POWDER BOXES.  
BOXES FOR SENDING VIALS THROUGH THE MAIL.



Boxes equal to English Manufacture, at much lower prices.  
USE WOODEN BOXES IN PLACE OF PAPER OR TIN.



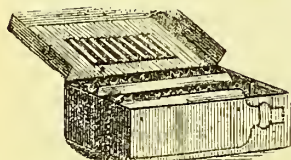
BOXES OF EVERY KIND AND  
FINISH MADE TO ORDER.

SOLE AGENTS FOR GREAT BRITAIN,

**KILNER BROS.,**  
KING'S CROSS, LONDON, N.



"The WANT of the PAST, the RAGE of the PRESENT, the BOX of the FUTURE."



BOX FOR 2 BOTTLES, OPEN.

## THE UNIQUE FOLDING BOX (Patent),

For the SAFE TRANSIT of Bottles, Fragile Articles, Game, Butter, Eggs,  
Cut Flowers, &c., per post and rail.

Patentee and  
Sole Manufacturer, **THOS. P. BETHELL, 24 Cable St., LIVERPOOL.**

Prize Medal, International Inventions Exhibition, London, 1885.

Also Specialities for Druggists and Drysalter. Seidlitz Boxes, Baking and Confection Powder Cases and Packages.  
SATISFACTORY REFERENCE REQUIRED WITH ORDER.

## AUSTIN & CO., PATENTEES & MANUFACTURERS OF ROUND CARDBOARD AND OTHER SHAPED BOXES, BRITISH AND FOREIGN,

For POSTAL and general purposes; also PATENT BARREL PACKAGES with Metal ends for dry goods.  
Inventors of the "NOVEL" METAL PERFUME SPRINKLERS.

Office & Warehouse—8 GREVILLE ST., HATTON GARDEN, LONDON, E.C.  
Steam Works, Mount Pleasant, Gray's Inn Road, London, and Ring Factory, Clonakilty, County Cork.

## SOAP AND OTHER BOXES,

Also Soft Wood Staves and Cask Heads,  
FOR THE TRADE.

Imported from Norway, ready for nailing together, by  
**BANKS & RATCLIFFE, G16 Exchange Buildings, Liverpool.**

PRICES ON APPLICATION.

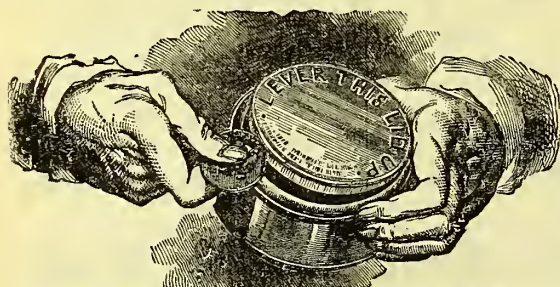
## 22 PRIZE MEDALS AND CERTIFICATES.

### JEYES' "PERFECT PURIFIER."

THE BEST AND CHEAPEST DISINFECTANT, DEODORISER, AND  
CLEANSER.

Sanctioned by H.M.'s Board of Trade, and H.M.'s Government  
of India.—Non-Poisonous and Non-Corrosive.

JEYES' SANITARY COMPOUNDS CO., LIMITED, 43 CANNON STREET LONDON.



Boxes ready made up, or the Patent Tops only (ready for  
making up), are supplied.

## SELF-OPENING TIN BOX COMPANY

(GRIFFIN'S PATENT),

Albion Tin Works, York Road, King's Cross, London, N.

**THE NEW TIN BOXES** for all kinds  
of Hermetically Sealed Preserved Foods, DRUGS and CHEMICALS.

**THE NEW TIN BOXES** are as cheap  
as the ordinary Boxes, require no soldering up, and can be opened with a penny  
piece.

**THE NEW TIN BOXES** are being  
adopted by the largest Food-preserving Houses and CHEMISTS, to whom  
references can be given.

**THE NEW TIN BOXES** are also per-  
fect for Tea and Coffee Canisters, Biscuit Boxes, Confectionery, Paints, Oils,  
Varnishes, Soaps, &c.

**THE NEW TIN BOXES** are described  
by the Times, Standard, Chronicle, Illustrated News, Engineer, Grocer, Oil and  
Colourman, and Press generally, as the "neatest and most elegant  
invention ever made."



# AYRTON & SAUNDERS' NOVELTIES & SPECIALITIES.

✎ Write for Samples, and get some good Saleable Lines that need only be shown to command a large sale. ✎

THE SPECIALITIES WE ADVERTISE ARE ALWAYS WORTH ATTENTION.

## THE "SILVER" DRESSING COMB.

(BINNS' PATENT.)

COOL, REFRESHING, AND INDESTRUCTIBLE.

These Combs are perfect, and will last for years—each Tooth being well finished and securely riveted—and the whole Comb being "Silver-plated" is rendered very attractive. They are sent out in separate Boxes, handsomely labelled. Ten Sizes and Patterns. Price, 12/ per dozen.

Sample Comb sent per post on receipt of 14 Penny Stamps. Liberal Terms to large Buyers and the Wholesale Trade.

## SCOTCH-WOOD PUFF BOX.

FITTED WITH SILK TOP PUFF IN DISPLAY COUNTER-BOX.

Retail at 1/ each—9/ per dozen, 4/6 per Cabinet. A sample Cabinet sent per Parcel Post for 4/6.

In addition to this we have some Splendid Shilling Lines in

EBONIZED, PAPIER-MACHE, JAPANESE AND FLORAL APPLEWOOD, &c.

## "ENGLISH" WILLOW BOXES

BEST QUALITY—EVERY BOX WARRANTED.

GUARANTEED OUR OWN MAKE.

	1dr.	2dr.	4oz.	1oz.	1 1/2oz.	2oz.	3oz.	4oz.	6oz.	1/2oz. to 2oz.	Nested
Deep .....	9d.	10d.	1/	1/2	1/4	1/6	2/2	2/6	3/	4/6	per gross.
Cut down..	9d.	9d.	11d.	11d.	1/2	1/4	1/6	2/	2/6	—	"

Country Sizes as Illustration.

### WILLOW BOXES, ORDINARY.

	1dr.	2dr.	4oz.	1oz.	1 1/2oz.	2oz.	3oz.	4oz.	1/2oz. to 2oz.	Nested
Deep .....	7d.	8d.	9d.	11d.	1/	1/4	2/	2/3	3/9	per gross.
Cut down....	7d.	8d.	9d.	9d.	1/	1/3	—	—	—	"

SAMPLES SENT ON APPLICATION.

SPECIAL TERMS TO LARGE BUYERS.

## GENUINE MENTHOL CONES.

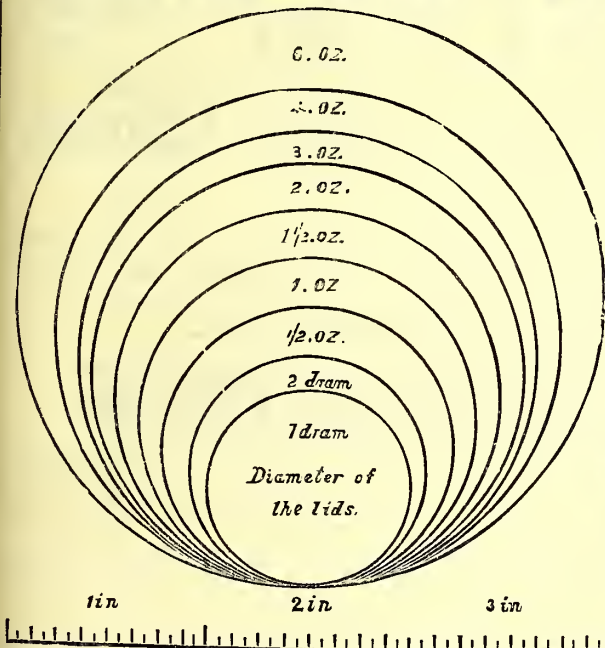
QUALITY GUARANTEED & EXCELLENT VALUE.

Immense quantities have been sold, and the sale is still increasing. Put up in a most saleable form in Turned Wood Pedestals.

EACH DOZEN IN A LABELLED OUTER FOR COUNTER SHOW

6d. Size, 4/ per dozen; 1/ Size, Boxwood Cases, 9/ per dozen.

SAMPLES SENT ON RECEIPT OF 5d. and 10d. IN STAMPS.



✎ Any Firm using Willow Boxes, and wanting something they can rely upon as being of good and uniform quality, will find it advantageous to write for Samples of our Brand.

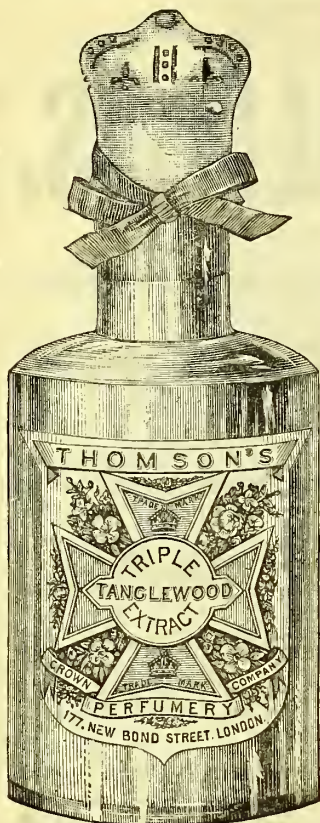
All Goods delivered Free to any London, Liverpool, or Manchester House for enclosure.  
Special Quotations given to Wholesale Buyers.



# AYRTON & SAUNDERS

149 DUKE STREET, LIVERPOOL.





# THE CROWN PERFUMERY CO.,

177 New Bond St., London,



Beg to draw the attention of Chemists, Druggists, and Perfumery Dealers to their Fine Perfumes and Fancy Soaps, for the excellent quality of which

**SEVEN PRIZE MEDALS HAVE BEEN AWARDED**

*Concentrated Essences of Great Fragrance and Strength:—*

Tanglewood,  
Crown Bouquet,  
Mathiola,  
Stephanotis,

White Rose,  
Jockey Club,  
Ess Bouquet,  
Wood Violet,

Frangipani,  
Opoponax,  
Ylang Ylang,  
Isle of Wight Bouquet,

16/, 20/, 28/, 48/, and 84/ per doz.

SUPPLIED IN BOND FOR EXPORT AT GREATLY REDUCED PRICES.

**THE CROWN SOAPS** are prepared with great care from the purest materials, delicately perfumed, and very lasting.

**BROWN WINDSOR, HONEY, ALMOND AND GLYCERINE, ROSE, &c.**—In Card Boxes of 8 tablets each, 8/ and 12/ per dozen boxes; also in Wood Boxes of 7 or 14 lbs., 64/, 74/, 84/, and 120/ per cwt.

**BEST OLD ENGLISH TRANSPARENT SOAP** (unscented), 36/- per gross.

**PURE COAL TAR SOAP.**—Each tablet enveloped in tin-foil. 27s. per gross. The well-known disinfecting properties of this Soap have caused it to be in universal demand.

**OPALINE SOAP, FOR THE SKIN AND COMPLEXION.**—Absolutely pure, delicately scented, and very emollient. 12/ per dozen boxes.

**OPALINE TOOTH PASTE, the New Fragrant Dentifrice,** 8/ per doz.

**OPALINE FACE POWDER,** 3/6 and 7/ per dozen packets; 15/ per dozen boxes.

*Indents may be forwarded through any English Commission Merchant or Drug House.*

ALL COMMUNICATIONS SHOULD BE ADDRESSED TO THE MANUFACTORY,

**NEW FAIRFIELD WORKS, OLD BAILEY, E.C.**

## FR I C T I O N .

THE MOST PLEASANT MODE OF APPLYING IT TO THE SKIN IS BY THE  
**PANSTREPTON (or All-Pliant) FLESH BRUSH.**

The best Article ever introduced for the purpose.

PRICES FROM 22/ to 36/ per doz.

Of all WHOLESALE HOUSES or of the SOLE MANUFACTURER,  
**R. CONDRON, 2 BINGFIELD STREET, LONDON, N.**

## NINE PRIZE MEDALS.

# GUSTAV BOEHM'S

**TRANSPARENT GLYCERINE SOAP,** Manufactured with Pure Spirits of Wine and Purest Glycerine. The first Soap of this description introduced in this market, and still recognised the best. Prices have been reduced lately.

**PURIFIED TOILET SOAPS, Highly Scented.** Large variety of such delicate Scents as Ess. Bouquet, Jockey Club, Musk, Opoponax, Rose de Mai, New Mown Hay, Violet, Lavender, Tea Rose, Mignonette, and many other distinct Perfumes.

**CALCUTTA GOLD MEDAL EXHIBITION SOAP,** assorted in 12 different scents and colours.

**WINDSOR, HONEY, OATMEAL, COAL TAR, CARBOLIC,** and all kinds of ordinary Toilet Soaps.

**EXTRACTS OF FLOWERS,** Triple, Double, and Simple.

**FLORAL PERFUMES,** with appropriate Silk Flower Labels. See special notice in THE CHEMIST AND DRUGGIST, July edition, 1885.

**LAVENDER WATER, FLORIDA WATER, EAU DE COLOGNE,** and all other Toilet Waters.

**COLONIAL TOILET WATER**—an excellent composition for use in hot climates.

**DENTIFRICE. VIOLET POWDER,** and all other Requisites for the Toilet.

**PETROSINE POMADE and PETROSINE IN BULK**—a Petroleum Jelly, guaranteed never to turn rancid.

MANUFACTORIES { 38 CHARLES STREET, CITY ROAD, LONDON, E.C., and at  
OFFENBACH o/MAIN, GERMANY.



## OSBORNE, BAUER &amp; CHEESEMAN,

Perfumers to the Queen,



PARTNERS—

H. BAUER, E. CHEESEMAN, J. HOLDSWORTH,

19 GOLDEN SQUARE, REGENT ST., LONDON, W.

MANUFACTURERS OF THE

## BEST PERFUMERY

IN ALL ITS BRANCHES, AND OF  
PURE REFINED SOAPS, ETC., ETC.

NOTICE to the TRADE.—Introduction of NEW 1/- SERIES of PERFUMES.

Y<sup>e</sup> Olde London  
Sweete & Centes*“Goode Scentes doe purify ye brain,  
Awake ye fancie, and ye witts refine.”*

SIR JOHN DAVIES, 1559.

The “get-up” of these perfumes is unique. There are six specially-designed Labels with Views of Olde London, printed in subdued colours, and the Scentes are boxed in half dozens, and superior Boxes of 3 Bottles, suitable for presents. The names of Scentes are—

Y<sup>e</sup> Maye Garlande.Y<sup>e</sup> Wilde Flowers.Y<sup>e</sup> Red Rose.Y<sup>e</sup> Pofie.Y<sup>e</sup> Woodbine.Y<sup>e</sup> Sweete Violet.Y<sup>e</sup> Sweete Pea.Y<sup>e</sup> Clove Pinke.Y<sup>e</sup> Gilleflower.Y<sup>e</sup> Sweete-brier.Y<sup>e</sup> Mignonette.Y<sup>e</sup> Newe Mowne Hays.

A NEW ARTICLE.

## “CRISTIN'S RUBY LIP BALM”

(REGISTERED).

For Softening, Preventing Cracks and Roughness, and giving a RUBY COLOUR to the Lips.

A NEW TOILET PREPARATION,

For Ladies and Gentlemen.

SUPERSEDING OLD-FASHIONED LIP SALVES.

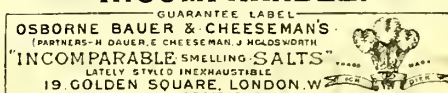
In METALLIC TUBES, 6d. &amp; 1s.

IMPORTANT ANNOUNCEMENT.

## “THE INEXHAUSTIBLE SMELLING SALTS.”

To protect the Trade and Public from the various common imitations of their celebrated Smelling Salts as supplied to the Queen, OSBORNE, BAUER &amp; CHEESEMAN now place over the Stopper of each Bottle the following distinctive guarantee Label, printed in Red, and will henceforth style their Salts

“INCOMPARABLE.”



The above Goods are obtainable through all of the Wholesale Houses. Catalogue sent free on application.



GOLD and SILVER MEDALS, Health Exhibition, 1884.

GOLD MEDAL, Antwerp, 1885

**RIMMEL'S PERFUMERY AND TOILET SOAPS.**

Principal Specialities:

Rimmel's Celebrated Toilet Vinegar, a Tonic and reviving Lotion for the Toilet or Bath, 1s., 2s. 6d., & 5s.  
 Rimmel's Lavender Water, Florida Water, Eau de Cologne, and Choice Perfumes for the Handkerchief  
 Rimmel's Extract of Lime Juice and Glycerine, Queen's Pomade, Brillantine, and Philocome, for the Hair.

Rimmel's Violet-Scented Catmeal, and Violet and Rice Powder, for the Complexion.  
 Rimmel's Brown Windsor, Honey, Transparent, Coal-Tar, Glycerine, Army and Navy, Almond Lettuce, White Heliotrope, Nice Violets, Tilia, and other Superior Toilet Soaps.  
 Rimmel's Carbondentine, White Rose Soap, and Coral Tooth Paste, for the Teeth.  
 Rimmel's Aromatic Ozonizer, Ozonised Toilet Waters, and Cassolette, the only agreeable disinfectant

SOLD BY ALL CHEMISTS AND DRUGGISTS.

THE USUAL ALLOWANCE TO THE TRADE.

PERFUMES SHIPPED IN BOND AT A GREAT REDUCTION.

**EUGENE RIMMEL**, Perfumer to H.R.H. the Princess of Wales, 96 STRAND, LONDON.

**A REAL SKIN BEAUTIFIER!!!**

**MOUSON'S COCOA BUTTER SOAP**  
 (SAVON AU BEURRE DE CACAO)

NO ROSIN USED & THEREFORE NO STICKY & SHRIVELLED HANDS!  
 NO EXCESS OF ALKALI & THEREFORE NO RED & ROUGH COMPLEXION!  
 NO INFERIOR OIL OR FAT & THEREFORE NO RANCID SMELL AFTER WASHING!

**MOUSON & CO.** Toilet Soap Manufacturers & Perfumers.  
 LONDON 32/33, Hamsell Street E.C. PARIS 29, Rue Radziwill.

To be had of all the principal perfumers, chemists & druggists throughout the world.

**A. GÉRARD, 21 JEWIN CRESCENT, LONDON, E.C.**

MANUFACTURER OF

HIGH-CLASS TOILET BRUSHES, FRENCH DRESSING COMBS, MIRRORS, NAIL, TOOTH, AND  
 SHAVING BRUSHES, AT THE VERY LOWEST PRICES.

MANUFACTURER OF

HIGH-CLASS POCKET CUTLERY, AND SOLE MAKER OF THE ORIGINAL REAL GERMAN  
 HOLLOW-GROUND RAZORS.

ILLUSTRATED PRICE LISTS FREE ON APPLICATION.

SPECIALITIES in Solid Back Toilet Brushes and Oval Hand Mirrors.

**LARD GUARANTEED PURE**

ORIGINAL AND BEST BASIS FOR OINTMENTS, &amp;c.

CLARIFIED LARD, 11d. per lb. (10d. by 28 lbs.), 84/ per cwt.

BENZOATED DO., 1/ per lb. (11d. by 28 lbs.), 94/ per cwt.

Mutton, Beef, Veal, and Deer Suet and Beef Marrow,

Clarified Trotter and Neats' Foot Oil, 1/6 lb., 12/ gall.

Every variety of **TOILET SOAP** from 56/ to 224/ per cwt.

SPECIALTIES:—

FRAGRANT GLYCERINE, MUSK, PINE, AND SANDAL WOOD SOAPS.

VIOLET POWDER, COSMETIQUES, POMADES, &amp;c.

**EWEN'S** Clarified Fat Works  
 AND  
 Toilet Soap Factory,  
 5 HATFIELD STREET, LONDON, S.E.

**HOUBIGANT,**

Perfumer to H.M. the Queen of England,  
 19 RUE DU FAUBOURG ST. HONORÉ,

**PARIS.**

Manufactory of the Finest Perfumery.

Toilet Waters, Eau de Cologne, Essences  
 for the Handkerchief, Toilet Soaps, Rice  
 Powders, Cosmetics.

PRICES CURRENT AND CATALOGUES ON DEMAND.



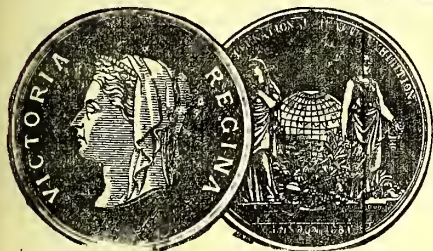
"THE PERFECTION OF NURSERY POWDERS."

# "THE SANITARY ROSE POWDER"

(REGISTERED TRADE MARK).

A SOLUBLE Antiseptic Dusting Powder for TOILET and CHILDREN'S USE.

AN ELEGANT SUBSTITUTE FOR VIOLET POWDER, FULLERS' EARTH, ETC., ETC



SILVER MEDAL AWARDED.

RECOMMENDED BY EMINENT MEDICAL AUTHORITIES.

SPECIALLY ADAPTED FOR HOT CLIMATES.

EXTRACTS FROM THE MEDICAL PRESS, &amp;c.

"It promises well for Nursery Use."—*The Lancet*."An improvement on the old-fashioned Violet Powders."—*British Medical Journal*."We have found it to possess the qualities claimed for it."—*Medical Times and Gazette*."Deserves very high commendation. It would be well if it were generally used in Nurseries and for Toilet purposes."—*Medical Record*."As a high-class Toilet Powder this preparation is likely to enjoy a good deal of favour."—*The Chemist and Druggist*."A very superior article, fragrant, soothing, cleanly."—*The Queen*.

In Boxes, 1/, 1/9, and 3/, and in large Bottles, 5/. Sample Packets, 6d.

In compliance with the wishes of several Ladies a PINK variety of the Sanitary Rose Powder is now made and sold in boxes at 1/ and 3/. The Boxes are similarly wrapped, but have the word PINK stamped across the Label.

In all cases the WHITE Powder will be supplied, as hitherto, unless PINK is specified at the time of ordering.

SPECIAL AGENTS:—Rio de Janeiro: CRASHLEY &amp; Co. Rio Grande and Porto Alegre: HALLAWELL &amp; Co. Madras Presidency: OAKES &amp; Co. Sydney and Brisbane: ELLIOTT BROS. Natal: T. H. DRURY &amp; Co., Pietermaritzburg.

WHOLESALE AGENTS:—LONDON: Messrs. EDWARDS &amp; SONS, BARCLAY &amp; SONS, NEWBURY &amp; SONS, SANGER &amp; SONS, and all leading Wholesale Houses. EDINBURGH: DUNCAN, FLOCKHART &amp; Co. DUBLIN: HAYES &amp; Co.

**Proprietors: JAMES WOOLLEY, SONS & CO.,**

Manufacturing Pharmaceutical Chemists, MANCHESTER.

SHOW TABLET AND HAND BILLS ON APPLICATION.

## JAMES'S TOILET SPECIALITIES.

JAMES'S HERBAL OINTMENT, for the Cure of Pimples, Black Specks, Blotches, &amp;c., and taking away Tan Freckles, Sunburn, &amp;c. Sold by all Chemists, 1/1½ and 2/9 per box.

## JAMES'S DEPILATORY,

For the instant removal of Superfluous Hair. Sold by all Chemists, 1/- and 2/- per box.

## JAMES'S HERBAL POMADE,

For Promoting the Growth of the Hair, Whiskers, Beard, Moustachios, Eyebrows, and Eyelashes. Sold by all Chemists, 1/- and 2/- per box.

These Articles are well worthy the attention of Chemists, Wholesale Houses, and others, as they are being well advertised.

JAMES &amp; CO., 268 (late 226) Caledonian Rd., London, N.

A PERFECT BOON TO MOTHERS!

## ROGERS' "NURSERY"

## HAIR LOTION.

One application is guaranteed to destroy all Nits and Parasites in Children's Heads, and immediately allay the Itching and Irritation.

It is now used in Thousands of Families with the greatest success, and all who have tried it are delighted with the effect, and declare it to be worth A GUINEA A BOTTLE.

PREPARED ONLY BY

**WILLIAM ROGERS,**  
CHEMIST,

BEN JONSON ROAD, STEPNEY, E.

Sold in large Bottles, price ONE SHILLING. Sample Bottle, 7d.

SOLD BY ALL CHEMISTS AND PERFUMERS.

Observe! Genuine only in Yellow Wrapper, White Label. WHOLESALE AGENTS.—Barclay &amp; Son; Edwards &amp; Son; Maw, Son &amp; Thompson; Millard &amp; Son; Sanger &amp; Sons; Thompson &amp; Co., Limited; Cutler &amp; Crisp; Hovenden &amp; Sons; Newbery &amp; Sons.

This Unique Preparation has the extraordinary property of keeping the

## HAIR IN CURL.

Now used by Ladies in all parts of the World.

Needs but an introduction to command a ready and constant sale.

RETAIL 1/6.

**FRIZZETTA**  
(REGISTERED.)

Supplied by all London Pat. Medicine Houses. Handsome Show-cards, Glass Tablets, and Circulars profusely supplied.

Foreign and Colonial Chemists should write for Terms, &amp;c.

**F. W. BATES, CHEMIST,**

BROOKS'S BAR, MANCHESTER.

## CHUBB'S Best SEIDLITZ POWDERS

—Full Weight—Loose, at 7s. per gross; in lift-off boxes, 7s. 6d., and in hinged boxes, 8s. 6d., per dozen.

## CHUBB'S Extra VIOLET POWDER

(WARRANTED PURE STARCH POWDER),

In 1d. Boxes, 6s. gross, and 2d. Boxes, 11s. gross, and in 1-lb. and 1/2-lb. Packets, 10d. per lb.

## CHUBB'S Pre- pared FULLER'S EARTH

In 1d. Boxes, 5s. gross, and 2d. Boxes, 9s. gross, and in 3d. and 6d. Round Boxes, 1s. 6d. and 2s. 6d. dozen.

SUBJECT TO 15 PER CENT. DISCOUNT FOR CASH.

May be obtained through all the Wholesale Houses, or direct from  
**CHUBB & CO., 29 OLD ST., LONDON, E.C.**  
SPECIAL QUOTATIONS FOR LARGE QUANTITIES.



**ROZALIUM**

(REGISTERED)

**POWDER OR PASTE****IS THE BEST DENTIFRICE.**

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*For Supplying Tooth Powder or other Dentifrice to the Brush.*  
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The bottles are sold empty, consequently they increase the sale of tooth powder from bulk. Wholesale from

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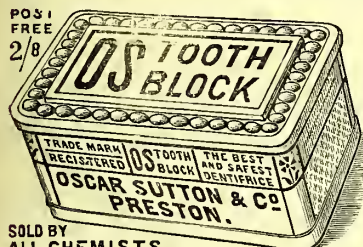
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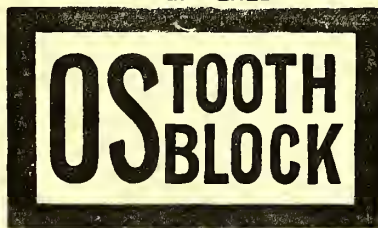
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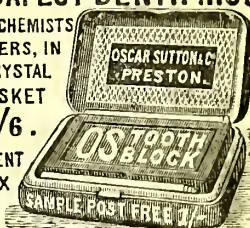
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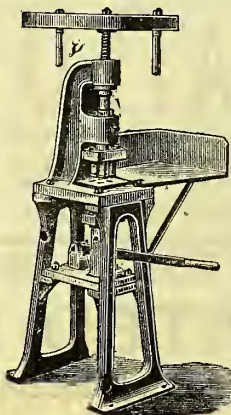
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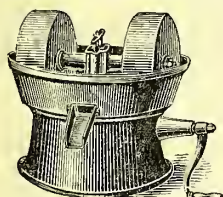
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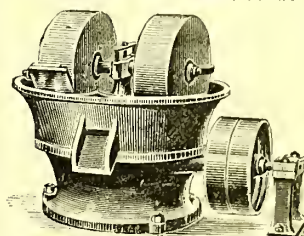


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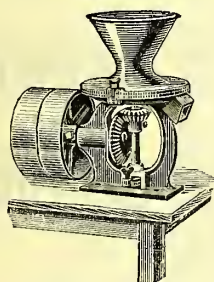
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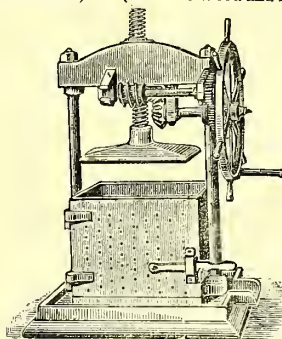
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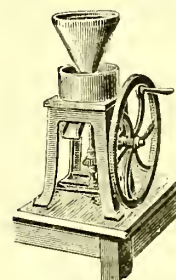
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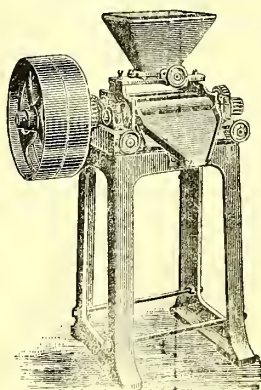
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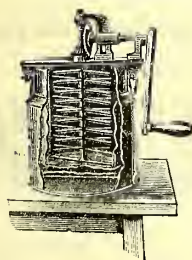


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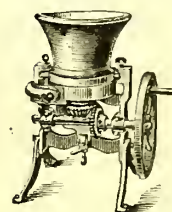
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Special Quotations to Shippers and for large quantities, on application to  
**J. SANGER & SONS, 489 OXFORD STREET, LONDON, W.**



# MONTHLY PRICE CURRENT OF DRUGS, CHEMICALS, AND PHARMACEUTICAL PREPARATIONS.

SUBJECT TO THE FLUCTUATIONS OF THE MARKET.  
THE PRICES QUOTED ARE FOR QUANTITIES NOT LESS THAN SPECIFIED.

## THOMPSON, MILLARD & CO., LIM.

WHOLESALE DRUGGISTS, DRUGGISTS' SUNDRIESMEN, ETC.,  
CURTAIN ROAD, LONDON, E.C.

Telegraphic Address—"BEATROP LONDON."

### SPECIAL QUOTATIONS FOR LARGE QUANTITIES.

December 1885.


Acet. Cantharid. P.B. ... lb 2/	Acid. Hydrocyan.	Ærugo Æris Pulv. ... lb 2/	Ammon. Iodid..... oz 1/3
" " Glacial ... 6/	" Scheele's... lb 1/4	" " Distil. ... 3/6	" Nitras ..... lb 1/4
" Colchici..... lb 10d	" Lactic..... oz 4d	Æther, Acetic ..... 4/6	" Oxalas ..... lb 2/8
" Destillat. .... 5d	" Meconicum..... oz 10/6	" Chloric ..... 3/6	" Phosphas ... 3/
" Ipecac. .... 9d	" Nitric, 1:360 ..... lb 8d	" Dist. .... 4/3	" Sulphas.....cwt 28/
" Scillæ ..... 6d	" Pur., 1:420 ..... 9d	" Purus P.B. (720) .. 5/10	" " Pur. lb 1/
" " Wt. Qt. ... 5d	" Nitros ..... 6d	" P.B. .... 5/4	" Valerian ... oz 1/4
Acid. Acet. Fort.	" Oleicum ..... 1/6	Alcohol, Absolute... lb 4/ 4/3	Amygd. Amar. .... lb 1/
(1 to 7) Beaufoy .. 4d	" Oxalic ..... 6d	" Ammoniat ... lb 3/8	" Jordan ..... 2/9
" " Carboy ... 3½d	" Perchloric ..... oz 1/	Aloes Barbad...cwt 80/ to £10	" Valent. .... 1/4
" " P.B. .... 5d	" Phosphor Dil. ... lb 6d	" " Pulv..... lb 2/6	Amyli. Pulv. ....cwt 28, 36/
" " Glac. 50°... 1/	" " Glacial ... 3/6	" Cape ..... cwt 48/	Amyl. Nitris..... lb 10/
" " Aromat. Glac. .. 6/	" Phosphoricum con-	" " Pulv. .... lb 9d	Annatto Hyps..... 1/10
" " Arsenious, P.B. ... 10d	centratum ..... lb 2/	" Hepatic ..... 2/6	Antim. Cinnabar,
" Benzoic ..... oz 8d	" Pyrogallic Pur. ... oz 1/6	" " Pulv. .... 3/	Prep. .... 5/6
" Boracic ..... lb 8d	" Salicylicum ..... lb 8/6	" Socot. .... lb 3/ 3/6	" Crocus.....cwt 48/
" Carboic, Crude, gal 2/6	" Sulphuric ..... 2d	" " Pulv. ... 3/6, 4/	" " Pulv. .... 50/
" " Pale ... 4/	" " Pur. ... 6d	" Aloin ..... oz 2/6	" Mur. .... lb 5d
" " Pur. ... lb 1/8	" " Aromat. P.B. ... 3/4	Alum, Cryst. ....cwt 10/	" Oxid. .... 2/
" Chromic ..... oz 6d	" Sulphuros ..... 4d	" Pulv. .... 11/	" Sulphurat ... 1/8
" Chrysophanic ... 1/3	" Tannic ..... 3/	" Opt. .... lb 3d	" Tart., Cryst... 2/
" Citric..... lb 1/10	" Tartaric, Cryst... 1/9½	" Rupel .....cwt 28/	" " Pulv. ... 1/8
" Pulv. .... 1/11	" " Pulv. ... 1/9½	" Ustum..... 56/	Aqua Anethi .....gr 3d
" Gallic ..... 4/6	Aconitia ..... grain 2d	" " ..... lb 8d	" Anisi ..... 3d
" Hydrobromic Dil .. 1/6	Adeps Benzoeat ..... lb 1/	Ambergris, Opt. .... oz 95/	" Camphoræ Conc., lb 3/4
" Hydrochlor. .... 2d	" Præp. .... 10d	Ammon. Benzoas ..... 1/	" Carui ..... 3d
" " Pur. P.B. ... 6d	Apomorphinæ Hydro-	" Bromid. .... lb 2/8	" Chloroform ... 3d
" Hydrocyan. P.B., oz 3d	chloras ..... gr 4d	" Carb. .... 6½d	" Cinnam. .... 6d
" " lb 1/	Ærugo Æris Exot. ... lb 1/6	" " Pur. ... 1/2	" Flor. Aur. Trip. ... 11d
" " Scheele's, oz 3d		" Hydrosulph. ... 9d	" " Rosæ, Dest. .. 5d



# THOMPSON, MILLARD & CO., LIM., LONDON.

## Monthly Price Current of Drugs, Chemicals, & Pharmaceutical Preparations.

SUBJECT TO THE FLUCTUATIONS OF THE MARKET.

Aqua Sambuci, Dest. lb 4d	Camphor Refined, Bell lb 1/2	Cort. Cinnamoni Pulv. lb 3/	Ess. Vanilla ..... lb 8/
" " Conc. " 11d	Cantharides ..... " 11/	" Cuspariæ ..... " 2/6	" Violæ, Pro Syrup... " 6/
" Lauro-Cerasi ... " 6d	" Pulv..... " 11/6	" Granator ..... " 5d	" Zingib. Conc. .... " 5/
" Lavand. Opt. ... " 6/	Cantharidine..... gr 6d	" Laricis ..... " 9d	" " Soluble ..... 4/6
" " Sec. .... " 3/4	Capers ..... lb 1/4, 1/8	" Limonis Ang. ... " 1/10	Euonymin ..... oz 5/
" Mellis ..... " 3/	Cap. Papav. Alb. ... 1,000 20	" Mezer. .... " 9d	Ext. Aconiti.....lb 7/
" Menth. Pip. ... " 3d	Capsicine ..... oz 1/	" Quercus..... " 4d	" Aloes Socot..... " 5/
Archil ..... " 6d	Carbo. Animal Pur..... lb 1/	" Rhamni Frangu. " 8d	" " Pulv. .... " 6/
Argent. Cyanid. .... oz 6/6	" Ligni Pulv. .... " 6d	" Parshiani " 1/6	" " Barb. B.P. ... " 3/6
" et Potassii Nitras	" Willow ..... " 1/	" Simarub. .... " 1/8	" " Pulv. .... " 4/
" " oz 2/3	Carmin ..... oz 3/6	" Ulmi ..... " 4d	" Anthemidis ..... 4/8
" Iodid. .... " 6/	Caryoph. Aromat. ... lb 1/8, 2/	Crem. Tartar ..... cwt 144/6	" Belæ Liq. B.P. ... " 2/4
" Nitras, Pur. .... " 3/7	Cassia Pulp. .... lb 1/6	" " Pulv. .... " 148/6	" Belladonnæ ..... 4/6
" " Cryst. .... " 3/6	Castor, N.A..... " 40/	Creosot. (Morson's)... lb 6/6	" " Alcohol ..... 16/
" " Recryst. .... " 3/8	Cera Alb., Block..... " 2/6	Creta Gallic ..... " 6d	" Calumbæ ..... " 8/6
" " Oxid. .... " 6/6	" " Cake ..... " 2/4	" " Pulv. .... " 4d	" Canb. Indicus Res. oz 1/
" Vivum..... lb 2/	" " Japan ..... " 1/	" Preparata ..... cwt 12/	" Cascariæ Sagradæ .. 9d
per bott 6/ 5/ cash	" Flav. Ang. .... " 2/	Crocus, Hyps., Opt. ... lb 50/	" Cascara Sag. Liq. lb 5/6
Arrowroot, Bermuda lb 2/	" Jamaica ..... " 1/9	" Placent. .... " 3/6	" Cascarillæ ..... " 12/
" "  " 2/8	Cerat. Calamin ..... lb 1/4	Croton Chloral Hyd.... oz 2/	" Cinch. Flav. Liq. ... " 18/
" Natal ... " 10d	" Cetacei ..... " 1/9	Cupri, Ammon. Sulph. lb 2/4	" Cocæ Liq. .... " 7/7
" St. Vincent. .... 7d,	" Resinæ ..... " 1/4	" Nitras ..... " 1/10	" Colchici ..... " 10/
" " 9d, 11d	" Sabinæ ..... " 1/10	" Sulph. .... cwt 25/	" " Acetic..... " 9/
Arsenic, Alb. Plv.	" Saponis..... " 2/	" Sec. .... " 14/	" Colocynth ..... " 18/
(3 cwt ck), cwt 15/	Cerii Oxalas..... oz 4d	Currie Powder..... lb 2/	" " Comp. .... " 10/
" (1 cwt ck), " 16/	Cetaceum..... lb 2/2	Dec. Aloes Co. Conc., 1 to 3 4/	" " Pulv. .... " 12/
" Iodid.....oz 1/9	Chirata..... " 7d	" Cinchon. Flav. Conc. 4/	" Conii ..... " 2/4
Asbestos ..... lb 2/6	Chloral Hydrat. .... " 5/10	" Hamatox.....lb 1/2	" Copaib. Resin ..... 4/6
Atropia ..... grain 1 1/2	" " Cryst ..... " 5/10	" Pareira Conc. .... " 2/4	" Cubebæ ..... oz 3/6
" ..... oz 28/	" " Liebreich, in	" Sarzæ Co., 1 to 7 lb 3/10	" Digitalis ..... " 8/
Auri. Chlorid., 15 gr. tubes	" 1-lb bottles 6/8	" " 1 to 15 " 7/	" Ergot. Liq. P.B. ... " 3/2
doz 23/	Chlorodyne ..... lb 6/	" " 1 to 31 " 14/	" " by W. qt. 3/
Bacc. Capsici, Parv.... lb 8d	Chloroform, Duncan's " 4/8	" " 1 to 7 " 4/3	" Filicis Liq. P.B. ... oz 1/
" Pulv.... " 10d	" Meth. .... " 2/0	" " Simp. 1 to 7 " 17/	" Gelsemii Alcol. ... " 2/
" Cassiæ ..... " 1/6	Chrysarobinum ..... " 10/	" " 1 to 15 " 8/6	" Gentian ..... lb 1/6
" Cubebæ ..... " 3/6	Cinchonidine Sulph. ... oz 1/2	" " ..... " 17/	" Glycyrrh. Liq. P.B. " 2/4
" Juniper ..... cwt 16/6	Cinchonin Mur. .... " 9d	" Scoparii ..... " 1/4	" " Mollis..... " 2/4
" Lauri. .... " 34/	" Sulph. .... " 9d	Dextrine ..... cwt 30/ per lb 5d	" " P.B. .... " 3/
" " Pulv. .... lb 10d	Cocaine Hydroch. .... gr 4d	Digitaline ..... grain 2d	" Hamatox..... " 1/6
" Pimentæ ..... " 7d	Coccus Cacti, S. Grain	Dolichos Pubes ..... oz 1/5	" " P.B. .... " 4/
" " Pulv. .... " 8d	lb 1/9, 2/	Dulcamara.....lb 8d	" Hyoscyam. Nov.... " 5/6
" " " 8d	" Cacti, D. Grain lb 2/	Elaterium.....oz 20/	" Ignat. Amar.....oz 2/4
Bals. Canada ..... " 2/	Coculus Indicus.... cwt 24/	Emetine ..... grain 4d	" Jaborandi ..... " 1/1
" Copaib. .... " 1/11	Codeia.....oz 34/	Emplast. Ammon.....lb 1/8	" Jalapæ ..... lb 7/
" Locatel ..... " 2/	Colloodium, B.P. .... lb 4/	" " C. Hyd. lb 2/	" Jalapæ Resin ..... oz 1/
" Peruv. .... " 7/8	" Flexile..... " 6/	" Belladonnæ, P.B. " 6/	" Krameriæ ..... lb 10/
" Sulphur ..... " 9d	" Vesicans ... " 8/	" Calefaciens " 1/8	" Lactuca ..... lb 5/
" Tolut. .... " 2/2	Colocynth, Tky..... " 2/	" Cantharidis " 6/	" Lupuli ..... lb 10/
Barytæ Carb. Pulv. .... 6d	" " Pulv. .... " 2/6	" Ferri ..... " 10d	" Malt..... " 11/
" Nitras ..... " 6d	" " Pulp. .... " 6/6	" Galbani ..... " 1/4	" Matice ..... oz 8/
" Pur. .... " 1/2	Conf. Aromat. Pulv. ... " 3/6	" Hydrarg. .... " 1/9	" Mezerei Ether ..... " 3/
Beberiæ Sulph. .... oz 4/	" Rosæ Canin..... " 1/	" Melilot ..... " 1/4	" Nuc. Vom. (Alc.) oz 1/
Birdlime, Japan ..... lb 1/2	" " Gallic ..... " 1/6	" Opii, P.B. .... " 3/9	" Opii ..... " 2/
Bismuthi Citras ..... oz 1/	" Sennæ ..... " 10d	" Oxycrot ..... " 10d	" " Liq. .... lb 3/
" et Amm. Citras, 1/2	" " P.B. .... " 1/2	" Picis ..... " 1/	" Papav. Alb. .... " 2/
" Oxid. P.B. lb 11/6	Cort. Aur. Ang. .... " 2/4	" Plumbi ..... " 10d	" Pareir. Brav. .... oz 1/
" Subcarb. .... " 8/10	" " Exot. .... " 1/2	" Resinæ ..... " 10d	" " Liq. .... lb 2/
" Trisnit. .... " 8/6	" " Fine cut " 1/10	" Roborans ..... " 1/	" Physostigmat ..... oz 6/
Bole Armen. .... cwt 16/	" Canellæ ..... " 6d	" Saponis ..... " 1/	" Quassia ..... " 6/
Borax ..... " 42/	" Pulv. .... " 10d	Ergota ..... " 1/8	" Rhamni Frangulæ .. 9/
" Pulv. .... " 46/	" Cascarillæ ..... " 9d	" Pulv..... " 2/	" " Liq. lb 3/
Bromine ..... oz 8d	" Elect. .... " 1/	Ergotin.....oz 1/6	" Rhei..... " 1/
Cadmii Bromid.....oz 9d	" Cassiæ ..... " 8d	Ess. Ambergris ..... lb 48/	" " Pulv. .... " 1/
" Iodid. .... " 1/3	" " Pulv. .... " 1/	" Aurantii ..... " 7/6	" Sarsæ ..... " 1/
Caffeina ..... oz 4/6	" Cinch. Flav. .... " 4/	" Bergamot ..... " 8/6	" " Co. .... " 1/
Caffeinæ Citras ..... " 4/6	" " Pulv. .... " 4/6	" " Super ... " 10/6	" " Liq. P.B. ... " 8/
Calcii Chlorid. .... lb 1/	" " Parv. .... " 4/	" Cubebæ ..... " 6/	" Sarsæ Jam..... " 1/
" Sulphas ..... " 2d	" " Pallid lb 2/6, 3/	" Limes ..... " 6/	" " Comp. .... " 1/
Calcis. Hydras ..... " 8d	" " Pulv. lb 3/6	" Limonis ..... lb 4/ & 5/	" Stramonii, Sem. ... oz 1/
" Hypophosph. " 4/6	" " Rubr. E. I. .... lb 3/6, 5/6	" " T. M. & Co.'s	" " Fol. .... lb 1/
" Phosph. .... " 10d	" Cinnamoni ..... lb 3/	" Special... lb 6/	" Taraxaci ..... " 2/
Calx. Chlorata ..... cwt 20/	" " Parv. .... " 2/	" " T. M. & Co.'s	" " Liq. .... " 2/
" Sulphurata ..... lb 2/8		" Special... p. W. qt. 5/6	" Valerian ..... " 2/
Camphor Refined... " 1/3			



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Ferri Ammon. Chlor.... lb 1/9	Gum Ammon. Guttæ... lb 1/4	Infus. Ergotæ Conc., W. qt. 1/10	Liq. Arsenici Chlor. ... lb 10d
" Citras.... 2/	" Assafoetida ..... 1/2	" Gentian ..... lb 1/4	" Atropia Sulph. ....oz 10d
" Tart. .... 2/4	" Colat ..... 2/9	" Jaborandi (Conc. 1 to 7).....lb 1/8	" Bismuth, P.B. ....lb 1/3
" Arsenias ..... 5/	" Benzoin ... lb 2/ 3/ 3/6	" Krameria Conc. lb 1/6	" Calcii Chloridi..... 6d
" Carb. Sacch. .... 1/	" Elemi..... lb 1/6	" Lupuli " " 2/	" Calcis Chlor. .... 3d
" Citras Ver. .... 2/9	" Euphorb. .... 8d	" Maticæ " " 2/	" " " cwt 24/
" Et Quinæ Citras...oz 1/2	" Pulv. .... 1/4	" Quassia " " 1/	" " Sacch. ....lb 9d
" H'ds 1/5 10 p. c. 10d	" Galbani ..... 2/	" Rhei " " 1/10	" Cinch. Flav..... 18/
" Cit. C. Strychnia...oz 6d	" Colat. .... 4/	" " W. qt. 1/8	" Pallid. .... 16/
" Iodidum ..... 1/	" Gambogia ... lb 3/ 3/6	" Rosæ Co. " lb 2/10	" Coccus Cacti ..... 2/
" Lactas. .... 3d	" Pulv. lb 3/10	" Sennæ " " 1/8	" Copaib. C. Cubeb.et
" Oxid. Mag.....lb 1/6	" Guaiaci...lb 1/8, 2/3, 3/6	" Sepentar. " " 1/6	" Buchu ..... 3/6
" Perox. (Hydr. P.B.)	" Juniperi..... lb 1/9	" Uvæ Ursi " " 1/6	" Epispastic ..... 8/
" Phosphas ..... lb 1/6	" Kino ..... 1/	" Valerian " " 1/6	" Ferri Acetatis ..... 6d
" Pyrophos. .... 6/	" Mastic Elect. .... 4/6	Inject. Apomorphinæ Hy-	" " Fortior., 1/8
" Rubigo ..... cwt 42/	" Myrrh, Tky....lb 1/2, 2/4	podermica .....oz 1/3	" " Dialysat..... 1/
" Sulph. Com..... 6/	" " Elect. lb 3/	" Ergotini Hypo-	" " Easton ..... 10/
" " Pur.....lb 4d	" " Parv. lb 1/6, 2/6	dermica... 1/	" " Lactophosph ..... 5/
" " cwt 24/	" Pulv. lb 1/8, 3/ 4/	" Morphia ..... oz 1/6	" " Perchlor. Fort., 10d
" Granulat....lb 6d	" Olibani ..... lb 1/	" Insect Powder ... lb 1/6, 1/10	" " Pernit..... 10d
" Valerianas.....oz 10d	" Sagapen ..... 5/	Iodoform ..... oz 1/4	" " Persulph..... 1/2
Ferrum Redactum .....lb 2/8	" Sang. Dragon lb 2/ 2/6	Iodum ..... 11d	" Hyd. Arsen. c. Hyd.
Flor. Anthem. Dup.... 11d	" " Pulv. lb 2/6, 3/6	" Resub. .... 1/	" " Nit. Acid ..... 2/8
" Gallic lb 5d, 8d	" Scammon. Aleppo	Iridin ..... 4/6	" " Perchlor ..... 8d
" Arnica.....lb 9/6	" lb 18/ 26/	Jalapina .....oz 1/10	" " Magnes. Bicar. .... 6d
" Rosæ Ex. .... 4/6	" " Pulv. lb 28/	Kali Acidulat ..... lb 1/	" " Morph. Acet. .... 3/6
Fol. Belladon..... 1/	" " Virg. .... 42/	Lactucarium.....oz 1/3	" " Bimecon ..... 6/
" Buchu ..... 9d	" " Pulv. .... 44/	Lactopeptine ..... 3/8	" " Opii Sed. .... 6/6
" Lancif. .... 2/	" Shellac Liver cwt 42	Lamellæ Atropinæ, case	" Plumbi Diacet... cwt 24/
" Coca ..... 3/	" " Orange, 4/ 15/	of 100 ..... 2/3	" " " lb 4d
" Conii ..... 10d	" " Alb. .... lb 1/3	" Cocainæ, c. 100 2/3	" " Brandish ..... 6d
" Digitalis ..... 9d	" Tragacanth Sorts	" Physostygmia, 2/3	" " Permang ..... 8d
" Hyoscyam (Bien.) , 8/6	" lb 2/ 2/6	" Lapis Calamin..... lb 2d	" " Quinoidin..... 5/
" (Annual)	" " Elect. lb 3/	" " Ver. .... 6d	" " Rhei dulc..... 2/4
" lb 3/6	" " Pulv. .... 3/6	" Pumice ..... 4d	" Santal Flv. C. Buchu
" Jaborandi..... 1/6	Hord Perlat..... cwt 24/	" " Pulv. .... 6d	et Cubeba ..... lb 5/6
" Maticæ ..... 1/4	Hydr. Am. (Am. Chl.)...lb 3/4	" " Extra, 1/	" " (Hewlett's)...lb 10/6
" Sennæ, Alex., Parv., 10d	" C. Creta..... 1/3	" Leptandrin .....oz 1/6	" Sennæ Dulc. .... 2/
" " Elect., 3/6	" Iodid. Rubr. ....oz 10d	" Lichen Hybern.....lb 6d	" Sodæ Arseniat. .... 8d
" " lb 1/2, 1/6	" " Virid. .... 9d	" " Elect. .... 9d	" " Chloratæ .... 4d
" " E.I. .... 4d, 6d	" Oleas. 5% .....lb 3/4	" Lign. Guaiaci Ras....cwt 16/	" " Strychnia ..... lb 2/
" " Tinn. 6d, 8d,	" " 10 %..... 3/9	" " Quassia Incis.....lb 3d	" Taraxaci Pallid ... 1/9
" 1/ 1/6, 1/9	" " c. Morph. 10%	" " Rass ..... 1/	" Liq. Tolut. .... 2/8
" Stramonii .....lb 1/	" lb 10/	" Sassafras Incis ... 6d	" Zinci Chlor. .... 4d
" Uvæ Ursi..... 1/	" Oxid. Rubr. (Nit. Ox.)	" Lime Juice .....gal 4/	Lithiæ Carbonas..... 1/6
" Exot. .... 6d	" lb 3/5	Linim. Aconit., P.B. ... 5/6	" Citras ..... 1/4
Fullers' Earth.....cwt 8/	" lb 3/8	" " Meth. .... 2/	Litmus ..... 2/
Gallæ Cœrul ..... 60/	" Flav..... lb 2/6	" " " 2/	Lobelia Inflata ..... 2/
" Pulv..... lb 1/	" Subchlor. (Calomel), 3/1	" " " 2/	Lupuline ..... 4/
" Gelsemium ..... 1/4	" Subnit. .... 8/	" " " 2/	Lycopodium ..... 2/
" Gingerine .....oz 1/6	" Subsulph. Flav. .... 3/3	" " " 2/	Macis Opt. .... 4/6
" Glycerin, Pure No. 1 ...lb 7d,	" Sulph. C. Sulph. .... 2/2	" " " 2/	Madder Crop ..... 9d
56-lb. tin 6½d	Hydrogen Perox..... 1/2	" " " 2/	Magnesia Calcina..... 1/4
Glycerin, No. 2...lb 6½d, 56-lb	Icthyocol, Brazil Inc. .... 4/6,	" Camph. Co. ....lb 2/	" " Pond... 3/9
tin 6d	" Russ. .... lb 15/	" " Meth., 1/2	" Calc.
Glycerin, Acid Carbol...lb 2/4	" 16/6, 17/6	" Chloroformi..... 4/6	(Howard's) .... 5/9
" " Gallic.... 2/4	Infus. Anthem. .... lb 1/6	" Hydrarg. .... 2/4	" Carb. Pulv. cwt 56/
" " Tannic, 2/	" Aurant. Conc. .... 2/	" Iodi ..... 6/8	" " Pond...lb 10d
" Price's .....lb 1/10	" " Co. .... 1/6	" Opii ..... 3/8	" Citras Gran., Opt., 1/4
Glycerinum Alumnis ...lb 1/4	" " " W. qt., 1/4	" Saponis Co..... 2/8	" " Sec. .... 1/2
" Plumbi Suba-	" Buchu " " 1/6	" " Meth. .... 9d	" " Bishop's, 2/4
cetatis...lb 1/10	" " W. qt., 1/4	" Sinapis Co. .... 6/	" Sulph. cks. cwt 8/
" Tragacanthæ, 1/2	" Calumbæ " " 1/4	" " Acet. .... 1/4	" " (Howard's) " 10/
Gran. Parad. .... cwt 28/	" Caryoph. " " 1/6	Liq. Acidi Chromici ... 1/8	" " Large..... 16/
" Pulv..... lb 7d	" Cascarilla, " " 1/4	" Ammon. Acet. Conc., 1/2	" " Sulph. cks. cwt 8/
Guarana ..... 9/6	" Chirata " " 1/4	" " Citras..... 1/4	" " " 16/
Gum Acaciæ Tky., Elect., 3/6	" " W. qt., 1/2	" " Fort. 959 ..... 6d	" " " 14/
" " Parv., 2/6	" Cinch. Flav. Conc., 3/4	" " Citratiss For-	" " Chlorid. ....lb 4/6
" " Selected, 4/	" Cuspariæ " " 2/6	" " " lb 2/	" Sulphas ..... 2/
" " Sts. cwt ..... 180/	" Digitalis " " 1/4	" " Fortiss. 880., 7d	Manna, Flky. Opt. Nov. , 6/
" " Ind. .... cwt 90/	" Ergotæ " " 2/	" Antim. Chlor. .... lb 5d	" " Parv. .... 3/6
" Ammon., Lump... lb 1/		" Arsenicalis ..... 8d	Mel. Ang. .... 9d



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Mel. Narbonne .....lb 10d	Oleum Menth. Virid. ....lb 36/	Pil. Gamboe .....lb 3/	Quinae Valerianas .....oz 6/
" Rosæ .....1/8	" Myristicæ .....oz 9d	" Hydrargyri .....2/	Quinetum .....3/
Menthol .....oz 2/6	" Neroli, Extra ...14/	" Chlor. Co. ....3/6	" Sulph. ....3/3
" Cones.....3/	" " 1-oz bot.	" Ipecac. C. Scillæ...4/6	Quinidin Sulph. ....2/3
Mist. Ammon. Conc. ...lb 4/	" " Petit Grain oz 3/	" Rhei. Co. ....4/6	Quinoidin .....8d
" Sennæ Co. ....8d	" Nucis Coc. ....gal 5/	" Saponis Co. ....11/	Radix Aconit. Napel ...lb 9d
Morphiæ Acet.....oz 5/3	" Olivæ Opt. ....7/6	" Scammon. Co. ....16/	" Actæa Rac. ....10d
" Hydrochlor.....5/3	" " Pallid lb 1/	" Scillæ Co. ....2/6	" Althææ .....10d
" Sulphas .....5/9	" " Sec. ....gal 5/6	Pilocarpinæ Nit. ....gr 4d	" Anchusæ.....cwt 60/
Mosch. Chin. (Pod.) ...105/	" Origan. ....lb 2/8, 3/6	Piper. Alb. ....lb 1/2	" Aristolochia ...60/
" Grain.....oz 90/ 120/	" " Pallid ...lb 4/6	" " Pulv. ....1/4	" Arnica .....lb 1/
Naphtha, Rect.....gal 5/3	" Palmae .....7d	" Cayenne.....1/6	" Belladonna .....8d
Nepenthe .....lb 8/	" Patchouli .....oz 3/9	" Long .....10d	" Calam. Ar. Dec. ...7d
Nicotine .....oz 40/	" Picis .....lb 4d	" " Pulv.....1/	" Calumbæ .....9d
Nux Areca.....lb 4d	" Pimentæ Ang. ...12/	" Nig. ....10d	" " Elect....1/4
" " Pulv. ....8d	" Pini Sylvest. ....5/	" " Pulv. ....1/	" Colchici Sicc. ....8d
" Moschat. ....lb 4/ 5/6	" Pulegii Ang.....oz 5/6	Pix. Burgund.....cwt 40/	" Curcumæ .....cwt 38/
" Vomica.....cwt 20/	" " Exot ...lb 6/6	Plumbi Acetas.....36/	" " Pulv. ....54/
" " Pulv. ....lb 1/	" Rhodii .....oz 3/6	" " Pur.....lb 10d	" Enulæ.....70/
Oleatum Zinci .....2/6	" Ricini Sec. ....lb 5 1/2d	" Iodidum.....oz 10d	" " Pulv. ....lb 1/
Oleo Resina Cubebæ ...oz 5/	" " Tins 5d	" Nitræ.....lb 8d	" Galang .....cwt 24/
Oleum Absynthii .....lb 30/	" " Unbd. ....lb 6d	" " Pur.....1/4	" Gentian .....28/
" Æthereum .....11/	" " Tins 5 1/2d	Podophylli Resina .....oz 1/4	" " Pulv. ....lb 8d
" Amygd. Dulc. ...1/5	" " Elect. ....lb 6 1/2d	Potassa Caustica .....2/8	" " coarse,
" " Ex. ....1/	" " Tins 6d	Potassæ Acetas .....lb 1/4	" " cwt 54/
" " Pallid. ....1/9	" " Ital. ....lb 8d	" Bicarb .....5 1/2d	" Glycyrrh. Rec. ....lb 1/
" " Essent. ....30/	" " Tins 7 1/2d	" " Pulv.....6d	" " Decort. ....1/4
" " Pure .....33/	" " Tasteless	" Bichromas .....6d	" " Pulv.
" " Artif. ....2/	" Rosæ Conc. ....3/4	" Carbonas .....6d	" " lb 1/8
" Anethi Ang. ....11/	" Rorismarini .....2/6	" Chloras .....lb 9 1/2d	" " Sicc. ....4d
" Anisi, Ind.....8/3	" " Extra ....4/	" Chromas .....1/6	" " Pulv.
" Anthem. Ang. ....oz 2/9	" Rutæ.....oz 10d	" Citras Ver.....2/2	" " lb 6d
" Cajeput .....4d	" Sabinæ Ang.....3/9	" Nitras. Pur. ....7d	" Hellebor. Alb.....cwt 56/
" Calam. Aromat...1/6	" " Exot. lb 4/	" Permang. Crys. ...1/3	" " Pulv. lb 9d
" Carui Ang. ....lb 13/	" Samb. Virid. ....9d	" " oz 2d	" " Nig.....8d
" " Exot. ....8/6	" Sant. Flav. Exot. oz 1/4	" Prussias .....lb 1/2	" " Pulv. lb 1/
" Caryoph. Ang. ...4/6	" " Ang. 1/7	" Sulphas .....5d	" Ipecac. ....lb 5/3
" Cassiæ .....4/9	" Sassafras .....lb 3/3	" " Pulv.....6d	" " Pulv.....5/9
" Cedar Wood.....oz 6d	" Sinap. Ess. ....oz 2/6	" Superoxalas ...10d	" Iridis .....7d
" Cinnamon .....4/	" Succini Com. ....lb 1/6	" Tartas .....2/3	" " Pulv. ....10d
" Citron .....lb 16/	" " Rect. ....2/	Potassii Bromid. ....1/9	" Jalapæ .....1/
" Citronelle .....3/2	" Theobromæ .....2/	" Cyanid. Cryst. oz 1/2	" " Pulv.....1/4
" Copaiba Ess.....4/6	" Verbenæ .....oz 3d	" Iodid.....lb 13/	" Krameriæ .....1/3
" Coriand. ....oz 2/6	" Vetivert.....20/	Potassium.....oz 9/	" Mezerei .....9d
" Croton .....5d	Opium. Tky. ....lb 13/ 15/	Pot. Pourri .....6/	" Pareiræ Brava ...1/4
" Cubebæ .....1/11	" " Pulv. ....lb 18/6	Pulv. Aloes C. Canella...1/8	" " Inc. ....1/6
" Cymini Ang.....1/2	Os. Sæpiæ .....10d	" Amgd. Co. ....2/8	" Pyrethri.....1/2
" Eucalypti Glob. lb 5/6	" " Pulv. ....1/2	" Antim.....1/6	" Rhei Ang. ....9d
" Feniculi .....oz 5d	Otto Rosæ .....oz 18/ 21/	" Aromat. ....5/	" " Pulv. ....1/1
" Geranii .....7d	" Virgin.....oz 28/	" Catechu Co. ....3/	" " E.L. ....lb 1/6, 2/4
" " Turkey ....1/4	Oxymel Scillæ .....lb 8d	" Cinnam. Co. ....4/8	" " 3/6, 4/6, 5/
" " Gall.....3/	Paraffinum Durum.....lb 1/	" Cretæ Arom. ....4/8	" " Trimmed lb 9
" Jasmin .....lb 8/	" Molle .....9d	" " cum Opio, 5/	" " Pulv. lb 3/ 4/
" Jecor. Aselli ...gal 4/6	Pepsine .....oz 2/	" Elaterii Co.....oz 2/6	" " 5/6
" " Pale Yellow, 5/6	" Boudault's .....3/6	" Glycyrrh. Co.....lb 1/2	" Sarsæ Hond. ....lb 2/4
" " Fine .....8/	" Porci .....3/9	" Ipecac. Co. ....5/	" " Incis, 2/8
" Non-freezing, new, 8/	" " Morson's .....8/	" Jalap Co.....2/8	" " Jam. lb 2/6, 2/10
" Juniper .....lb 2/2, 2/8	Petrol. Barb. ....lb 6d	" Kino Co.....5/	" " Inc. lb 2/10, 3/
" " Ang. ....oz 1/9	Physostigmina .....gr 1/	" Opii Co. ....5/	" Scillæ .....lb 6d
" Lauri .....lb 1/6	Pil. Aloes. Barb. ....lb 3/	" Rhei Co. ....4/	" " Pulv. ....1/6
" Lavand. Ang. ...oz 3/6	" " Pulv.....4/	" Scammon. Co. ....28/	" Senegæ .....3/
" " Exot.....lb 2/6,	Pil. Aloes. et Assafetid. ....2/8	" Seidlitz .....1/1	" Serpenter .....4/
" " 4/6, 8/6	" " Myrrh .....8/	" Tragac. Co. ....2/	" Spigeliæ .....1/4
" Macis Exp. ....oz 8d	" " Socot. ....4/	Quinae Citras .....oz 5/6	" Sumbul .....2/
" Menth. Pip. Ang.	" Assafetid. Co. P.B. ....3/4	" Hydrochloras...4/10	" Tormentill.....8d
" Nig. lb 38/	" Coccia .....3/	" (1-oz. vials H'ds)	" Valerian.....10d
" " Hotch.	" Colocynth Co. ....12/	" Sulph. (Howard's) oz 4/4	" Zingib Afric. ....cwt 50
" " lb by	" " Pulv., 16/	" in 4-oz bot. 4/2	" " Plv. lb 10d
" " original	" " et Hyoscyam.	" T.M. & Co.'s oz 4/	" " Jam. ....cwt 6/0
" " bot. 20/6	" " lb 14/	" Unbleached. 3/10	" " to 12/12/
" " Exot. lb 16/	" Ferri Carb. ....2/4	" by 3 oz bottle	" " Pulv. ....1/6, 2/
	" Iodid. ....10/		Raspberry Vinegar .....lb 9



# THOMPSON, MILLARD & CO., LIM., LONDON.

## Monthly Price Current of Drugs, Chemicals, & Pharmaceutical Preparations.

SUBJECT TO THE FLUCTUATIONS OF THE MARKET.

Sacch. Lactis .....lb 1/4	Spt. Æther Nit.(°850) Wr. qt.	Tabellæ Nitroglycerini oz 1/8	Tinct. Scillæ ..... lb 2/4
" Pulv. .... " 1/6	" " " B.P. ....lb 3/2	Tamarinds ..... lb 6d	" Senegæ ..... " 3/
" Ustum ..... " 6d	" Ammon. Arom lb 2/2, 2/3	Tapioca ..... " 6d	" Sennæ ..... " 2/6
Sago, Perlat., small ...cwt 24/	" " " B.P. lb 3/	Tereb. Chio ..... oz 1/	" Serpentar ..... " 2/8
" large ... " 28/	" " Fœtid..... " 3/	Thymol ..... " 2/6	" Stramonii ..... " 2/8
Sal. Cheltenham .....lb 1/4	" Armorac Co.....lb 2/8	Tinct. Aconiti, P.B. .... " 3/6	" Sumbul ..... " 3/
" Prunella ..... " 6d	" Camphor ..... " 3/3	" " Fleming's " 6/	" Tolu ..... " 4/
Salicina ..... ..oz 7d	" Chloroform ..... " 3/4	" Ac'ææ Racemosa " 3/	" Valerian ..... " 2/4
Santonine ..... ..10d	" Cinnamomi ..... " 4/6	" Aloes ..... " 2/4	" " Ammon. " 3/4
Sapo. Animalis P. B. .... " 7d	" Juniperi Co. .... " 2/4	" Arnica ..... " 3/4	" Veratri Virid..... " 4/
" Castil. Exot. ....cwt 38/	" Myristic. P.L. .... " 2/2	" Assafoetida..... " 3/6	" Zingiber ..... " 3/4
" " " Pulv. .... " 1/4	" " P.B. .... " 3/6	" Aurant. .... " 2/4	" " Fort. .... " 4/6
" Mollis P.B. .... ..10d	" Pyroacetic ..... " 2/6	" " Recent..... " 3/4	Tonquin Beans ..... " 4/6
Scammon. Resina, P.B. .... " 10/6	" Rorismar, P.B. .... " 3/6	" Belladon. .... " 2/6	Troch. Acid. Tannic, B.P. .... " 2/8
" " Pulv. .... " 12/	" Stannum Granul. .... " 2/4	" Benzoin Co. .... " 3/6	" Bismuth ..... " 2/9
Sem. Anethi ..... ..7d	" Stanni Mur. Solut. .... " 9d	" Buchu ..... " 2/6	" Calomel ..... " 3/6
" Anisi .....cwt 40/ 56/	" " Ox. .... lb 1/ 2/	" Calumbæ ..... " 2/4	" Catechu ..... " 2/4
" Pulv. ....lb 8d	Strontia Carb. .... lb 8d	" Camph. Co. .... " 2/4	" Ferri Redact. .... " 3/
" Card. min.....lb 4/ 5/ 6/	" " Pur. .... " 2/	" Cannab. Ind. .... " 4/2	" Morphia ..... " 3/
" " Decort, lb 5/	" " Nitras ..... " 8d	" Cantharid. .... " 2/9	" Morphia et
" Carui .....cwt 65/	" " Exsiccat ..... " 8d	" Capsici ..... " 3/4	" Ipecac. .... " 3/
" Pulv. ....lb 10d	Strychnia cryst. .... oz 3/	" Cardam Co. .... " 2/4	" Opii ..... " 4/6
" Colchici .....lb 1/	" " Pulv. oz 2/10	" Cascarillæ ..... " 2/2	" Santonini ..... " 3/
" Conii ..... ..9d	Succus Belladon., P.B. lb 1/9	" Castor ..... " 4/6	Ung. Acidi Borici ..... " 1/6
" Coriand. ....cwt 36/	" Conii ..... " 1/9	" Catechu ..... " 2/2	" " Carbolic ..... " 1/6
" Pulv. ....lb 8d	" Hyoscyami..... " 3/	" Chiretta ..... " 2/6	" " Salicylici ..... " 2/
" Cydoniæ ..... " 3/6	" Rhamni ..... " 8d	" Chloroform Co. .... " 3/4	" Belladonnæ ..... " 2/3
" Cymini .....cwt 32/	" Scoparii, B.P. .... " 2/	" Chloroformi et	" Cantharidis ..... " 3/4
" Pulv. ....lb 8d	" Taraxaci ..... " 2/	" Morphina ..... " 2/8	" Cetacei ..... " 1/9
" Fœniculi .....cwt 44/	Sulphur Hypochlor. .... oz 8d	" Cinchon. Co. .... " 3/2	" Elemi ..... " 1/6
" Pulv. ....lb 10d	" Iodid ..... " 1/2	" " Flav. .... " 3/4	" Eucalypti ..... " 1/8
" Fœnugreek ....cwt 10/6	" Lotum ..... lb 6d	" Cinnam. .... " 2/6	" Gallæ ..... " 1/6
" Pulv. ....lb 6d	" Precip. P.B. .... " 7d	" Cocci ..... " 2/8	" " C. Opio ..... " 4/
" Hyoscyami ..... " 1/6	" Rotund..... cwt 14/	" Colchici Sem..... " 3/4	" Hyd. Ammon. .... " 2/8
" Lin .....cwt 24/	" Sublimat. .... " 16/	" " Co. .... " 3/4	" " Fort. .... " 1/11
" " Farina ..... " 15/	" Vivum ..... " 14/	" Conii, P.B. .... " 2/6	" " Nitrat. .... " 2/
" Coutus ..... " 21/	Suppositor. Iodoform...doz 1/	" Croci ..... " 5/6	" " Dil. .... " 1/6
" Santon. ....lb 8d	Syrup Althæ ..... lb 1/	" Cubebæ ..... " 4/	" " Ox. Rub. .... " 2/10
" Staphisagria .....cwt 58/	" Aurant ..... " 10d	" Digitalis ..... " 2/4	" Iodi ..... " 3/
" Stramonii .....lb 1/	" " Flor. .... " 9d	" Ergotæ ..... " 3/4	" Iodoformi ..... " 3/6
Sodæ Acet. Pur ..... " 9d	" Calcis, Hypophos. .... " 2/	" Ferri Acetas ..... " 4/	" Picis Liquid. .... " 1/
" Arsenias .....oz 4d	" " Lactophos. .... " 2/	" " Perchlor .... " 2/8	" Sambuci Flor..... " 1/8
" Bicarb. ....cwt 14/ 26/	" Chloral ..... " 1/4	" Gallæ ..... " 2/4	" " Virid. .... " 1/2
" (Howard's) cwt 52/	" Croci ..... " 1/4	" Gelsemini Semp... " 3/6	" Staphisagria..... " 1/6
" Bisulphit. ....lb 1/6	" Ferri Bromid ..... " 2/	" Gentian Co. .... " 2/4	" Sulphuris ..... " 1/2
" Bitart. Pulv. .... " 2/4	" " Cit. C. Quin. .... " 3/4	" Guaiaci Ammon. .... " 3/4	" Zinci ..... " 1/6
" Carb. P.B. .... " 6d	" " Hypophos. .... " 1/8	" Guarana ..... " 4/	" Zinci Oleate .... " 1/10
" " Exsiccat. .... " 9d	" " Iodid ..... " 1/4	" Hamamelis. .... " 3/6	Vanilla ..... ..oz 2/6
" Cit. Tart. Eff. .... " 2/6	" " C. Quin. .... " 3/2	" Hyoscyam. .... " 3/9	Vaseline ...lb 1/ { 1 lb tins 1/3
" Hypophosphis .... " 4/6	" " Lactophos. .... " 2/	" Iodi ..... " 4/3	" " 5 lb " 10d
" Hyposulphit. ....cwt 14/	" " Phosphas... " 1/3	" Jaborandi... .... " 4/6	" Alb. ....lb 1/11
" " .....lb 2d	" " Co. .... " 1/	" Jalapæ ..... " 2/6	Veratria ..... ..oz 6/
" Nitras Pur. .... " 1/	" " Quina et.	" Kino ..... " 3/4	Vinum Aloes .....lb 2/4
" Phosphas, B.P. .... " 9d	" Strychina 2/	" Krameria ..... " 2/8	" Antim. .... " 1/9
" Pot. Tart. Pulv. .... " 1/2	" Hemidesmi ..... " 1/	" Laricis Cort. .... " 3/	" Aurant. B.P. ....gal 5/
" Salicylas ..... " 9/	" Ipecac. .... " 1/	" Lavand. Co. .... " 3/4	" Colchici .....lb 2/2
" " Crystals " 12/	" Limonis ..... " 1/	" Limonis ..... " 2/6	" Ferri ..... " 2/
" Sulphas .....cwt 8/	" Marubii ..... " 1/	" Lobeliæ ..... " 2/6	" " Citras ..... " 1/6
" " In Casks .....6/6	" Mori ..... " 1/4	" " Æther... " 5/	" Ipecac. .... " 2/
" Sulpho. Carb. ....lb 4/6	" Papav. ....10d	" Lupuli ..... " 2/8	" Opii ..... " 4/
" Valerian .....oz 1/4	" Pruni ..... " 1/4	" Myrrh ..... " 3/4	" Quinæ ..... " 1/2
Sodii Bromid. .... " 3d	" Rhamni ..... " 1/	" Nucis Vom. .... " 3/4	" Rhei ..... " 2/8
" Iodidum ..... " 1/3	" Rhoeades..... " 9d	" Opii ..... " 3/6	Zinci Acetas ..... " 2/
" Sulphis..... lb 4d.	" Rhei ..... " 1/2	" Opii Ammon. .... " 4/	" Chlorid..... " 3/
" " recryst. .... " 8d	" Rosæ ..... " 1/4	" Podophilli ..... " 3/6	" " Sticks.....oz 6d
Sodium ..... ..oz 1/2	" Rutæ ..... " 1/2	" Pruni Virg..... " 2/8	" Iodid .....oz 1/10
Sol. Æther Nit. (1 to 7) lb 5/6	" Sarnæ Jam..... " 3/8	" Pyrethri ..... " 3/6	" Ox. Pur. Hubbard's oz
Soy (Indian) ..... ..5d	" Scillæ ..... " 7d	" Quassia ..... " 2/2	" " 1/3
Spt. Æther Compositus " 4/	" Sennæ ..... " 1/	" Quinæ, P.B. .... " 3/10	" Sulph. ....cwt 16/
" Sulph. .... " 3/3	" Tolu .....10d	" " Ammon. .... " 3/10	" Sulpho. Carb. ....lb 4/
" Æther Nit. (°850) " 2/10	" Violæ ver. .... " 1/	" Rhei ..... " 3/	" " .....oz 5d
	" Zingib. .... " 9d	" Sabinæ ..... " 2/8	" Valcrian ..... " 9d

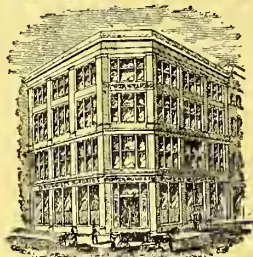


# THOMPSON, MILLARD & CO.

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CURTAIN ROAD, LONDON, E.C.

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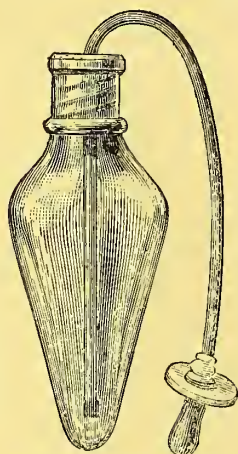
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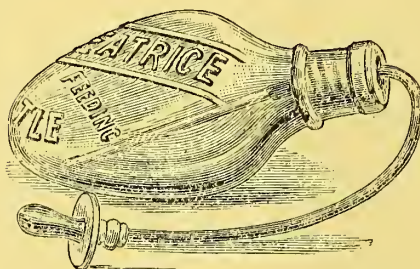
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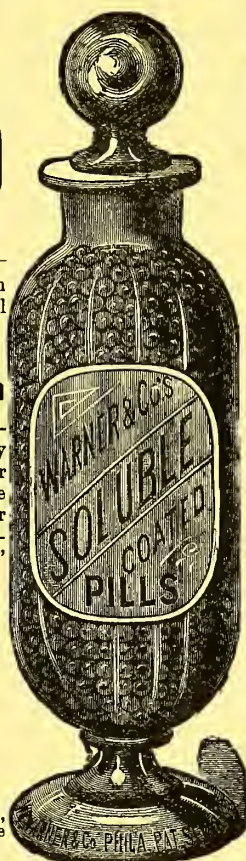
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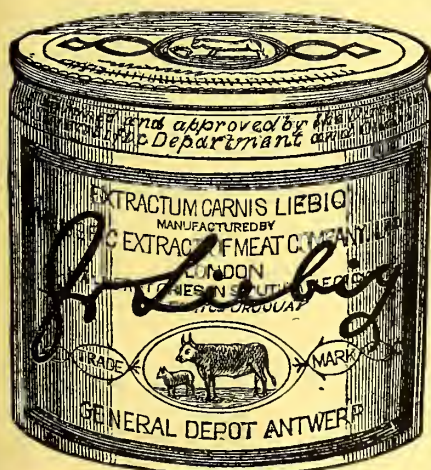
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**CHEMISTS' & DRUGGISTS' DIARY,**  
**1886.**

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			Inches.	d.		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
 Heart Shape	1	1	3 x 4½	1 size.	"	0 8	0 8	0 8	0 8	1 4	1 0
	2	2	4½ x 6	1½ "	"	1 0	1 0	1 0	1 0	2 0	1 6
	3	3	4½ x 7½	2 "	"	1 6	1 6	1 4	1 4	2 8	2 0
	3½	3½	5½ x 7½	3 "	"	2 3	2 3	2 0	2 0	4 0	3 0
	4	4	6½ x 8½	4 "	"	3 0	3 0	2 8	2 8	5 4	4 0
 Long Shape	5	5	8 x 9½	6 "	"	4 6	4 6	4 0	4 0	8 0	6 0
	1	1	2½ x 4	1 "	"	0 8	0 8	0 8	0 8	1 4	1 0
	2	2	4½ x 6½	2 "	"	1 6	1 6	1 4	1 4	2 8	2 0
	2½	2½	4½ x 8½	3 "	"	2 3	2 3	2 0	2 0	4 0	3 0
	3	3	5½ x 9½	4 "	"	3 0	3 0	2 8	2 8	5 4	4 0
 Oval Shape	4	4	6½ x 11	6 "	"	4 6	4 6	4 0	4 0	8 0	6 0
	5	5	7½ x 14½	8 "	"	6 8	6 8	6 0	6 0	12 0	8 0
	1	1	4½ x 6½	2 "	"	1 6	1 6	1 4	1 4	2 8	2 0
 Saddle Shape	2	2	6½ x 8½	4 "	"	3 0	3 0	2 8	2 8	5 4	4 0
	3	3	7½ x 9½	6 "	"	4 6	4 6	4 0	4 0	8 0	6 0
	1	1	6½ x 12½	6 "	"	4 6	4 6	4 0	4 0	8 0	6 0
 Wrist Shape	2	2	7 x 15	8 "	"	6 8	6 8	6 0	6 0	12 0	8 0
	3	3	8 x 16	12 "	"	8 8	8 8	8 0	8 0	15 6	12 0
	1	1	3 x 10½	3 "	"	2 3	2 3	2 0	2 0	...	...
 Knee	2	2	4½ x 15	6 "	"	4 6	4 6	4 0	4 0	...	...

BREAST PLAISTERS.		No.	Size of Leather	Retail Prices.	Per doz.
				d.	s. d.
 Emp. Plumbi, for Ladies' Breasts	1	1	Diam. 6½ in.	4 size	2 8
	2	2	" 7½ "	6 "	4 0
	1	1	" 6½ "	.. "	4 0
Emp. Plumbi, for Ladies' Breasts spread on Chamois	1	1	" 6½ "	.. "	4 0
	2	2	" 7½ "	.. "	6 0
BREAST PLAISTERS.		No.	Size of Leather	No. 1 Quality. Per doz.	No. 2 Quality. Per doz.
				s. d.	s. d.
Emp. Belladonna, for Ladies' Breasts	1	1	Diam. 6½ in.	5 4	4 0
	2	2	" 7½ "	8 0	6 0
	1	1	" 6½ "	8 0	6 0
ditto spread on Chamois	1	1	" 6½ "	8 0	6 0
	2	2	" 7½ "	12 0	9 0

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" Cerat Saponis .....	8/0	9/0	14/0	14/0	24/0	4/6
" Dreadnought .....	9/0	10/0	14/0	14/0	24/0	4/6
" Elemi .....	9/0	10/0	14/0	14/0	24/0	4/6
" Ferri .....	9/0	10/0	14/0	14/0	24/0	4/6
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" Iodine .....	16/0	..	..	30/0	36/0	5/6
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" Picis Co. ....	11/0	12/0	15/0	15/0	24/0	4/6
" Puncbi .....	5/6	6/6	12/0	12/0	21/0	4/0
" Potass. Iodid. ....	16/0	..	..	30/0	36/0	5/6
" Resinae .....	5/6	6/6	12/0	12/0	21/0	4/0
" Roborans .....	6/0	7/0	12/0	12/0	21/0	4/0
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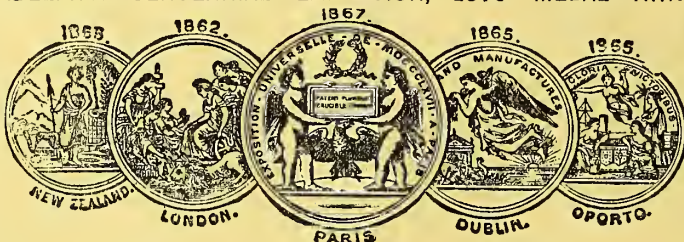
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(SOLE MANUFACTURERS OF MORGAN'S AND SALAMANDER CRUCIBLES).

## SALAMANDER - CRUCIBLES,

Patented in Great Britain, Germany, France, Italy, United States, &c., &c.

ARE NOT AFFECTED BY MOISTURE OR FROST.

The only Plumbago Crucibles that require NO ANNEALING.



TRADE MARK.  
Process Patented.

Each number contains about 2 lbs. English (thus, No. 25=50 lbs. capacity), and are so stamped.

No. 5 0..per doz.	£0 8	No. 5 ..per doz.	£0 15 0	No. 25 .. each	£0 6 3	No. 90 .. each	£1 2 6
4 0..	0 1 1	6 ..	0 18 0	30 ..	0 7 6	100 ..	1 5 0
3 0..	0 1 4	8 ..	1 4 0	35 ..	0 8 9	120 ..	1 10 0
2 0..	0 2 0	10 ..	1 10 0	40 ..	0 10 0	150 ..	1 17 6
1 0..	0 2 6	12 ..	1 16 0	45 ..	0 11 3	200 ..	2 10 0
1 ..	0 3 0	14 ..	2 2 0	50 ..	0 12 6	250 ..	3 2 6
2 ..	0 6 0	16 ..	2 8 0	60 ..	0 15 0	300 ..	3 15 0
3 ..	0 9 0	18 ..	2 14 0	70 ..	0 17 6	400 ..	5 0 0
4 ..	0 12 0	20 ..	3 0 0	80 ..	1 0 0	500 ..	6 5 0

SALAMANDER MUFFLES, to suit above Crucibles, 2d. per Number.

SALAMANDER MUFFLES, to suit above Crucibles, 2d. per Number.



12-in. SALAMANDER COVERS, 1d. per No.

12-in. STIRRERS, 12s. per dozen.

STANDS, 1d. per No.

TRADE MARK.

INDENT FOR

### SALAMANDER-CRUCIBLES

And thereby ensure getting DAMP-PROOF CRUCIBLES  
manufactured by

THE MORGAN CRUCIBLE COMPANY.

#### FLUXING POTS.

IDENTICAL WITH THE FRENCH IN QUALITY, FORM, AND CAPACITY.

No.	Height, inches.	Height, milli.	Diameter, inches.	Diameter, milli.	Per dozen Crucibles.
0	3	*050	1 1/2	*030	£0 0 4
1	3 1/2	*055	1 3/4	*033	0 0 6
2	3 1/2	*060	1 3/4	*036	0 0 8
3	3 1/2	*070	1 3/4	*049	0 0 10
4	3 1/2	*080	1 3/4	*046	0 1 0
5	3 1/2	*090	2	*050	0 1 2
6	3 1/2	*100	2	*055	0 1 4
7	4 1/2	*110	2 1/2	*062	0 1 6
8	4 1/2	*120	2 1/2	*068	0 1 10
9	5 1/2	*135	2 1/2	*074	0 2 4
10	5 1/2	*150	2 1/2	*080	0 3 9
12	7 1/2	*185	3 1/2	*095	0 4 9

COVERS TO FIT ALL SIZES.



All sizes upwards can be supplied.

#### SCORIFIERS.



#### MUFFLES.



#### ROASTING DISHES.



ALL DAMP-PROOF CRUCIBLES manufactured by

### THE MORGAN CRUCIBLE COMPANY

Are distinguished by the Brand

“SALAMANDER.”



#### BATTERSEA ROUND.

Stamped as on illustration.

No.	Height, inches.	Width, inches.	Crucibles er doz.	Covers, per doz.	No.	Height, inches.	Width, inches.	Crucibles per doz.	Covers, per doz.
A	3 1/2	1 1/2	0/5	0/6	B	3 1/2	1 1/2	0/5	0/6
B	3 1/2	1 1/2	0/5	0/6	C	3 1/2	1 1/2	0/5	0/6
C	3 1/2	1 1/2	0/5	0/6	D	3 1/2	1 1/2	0/5	0/6
E	3 1/2	1 1/2	0/5	0/6	F	3 1/2	1 1/2	0/5	0/6
F	3 1/2	1 1/2	0/5	0/6	G	3 1/2	1 1/2	0/5	0/6
G	3 1/2	1 1/2	0/5	0/6	H	3 1/2	1 1/2	0/5	0/6
H	3 1/2	1 1/2	0/5	0/6	I	3 1/2	1 1/2	0/5	0/6
I	3 1/2	1 1/2	0/5	0/6	J	3 1/2	1 1/2	0/5	0/6
J	3 1/2	1 1/2	0/5	0/6	K	3 1/2	1 1/2	0/5	0/6
K	3 1/2	1 1/2	0/5	0/6	L	3 1/2	1 1/2	0/5	0/6
L	3 1/2	1 1/2	0/5	0/6	M	3 1/2	1 1/2	0/5	0/6
M	3 1/2	1 1/2	0/5	0/6	N	3 1/2	1 1/2	0/5	0/6
N	3 1/2	1 1/2	0/5	0/6	O	3 1/2	1 1/2	0/5	0/6
O	3 1/2	1 1/2	0/5	0/6	P	3 1/2	1 1/2	0/5	0/6
P	3 1/2	1 1/2	0/5	0/6	Q	3 1/2	1 1/2	0/5	0/6
Q	3 1/2	1 1/2	0/5	0/6	R	3 1/2	1 1/2	0/5	0/6

#### BATTERSEA TRIANGLE.

Stamped as on illustration.

No.	Height, inches.	Width, inches.	Crucibles per doz.	Covers, per doz.	No.	Height, inches.	Width, inches.	Crucibles per doz.	Covers, per doz.
S	4 1/2	2 1/2	2/0	1/0	T	4 1/2	2 1/2	2/0	1/0
U	3 1/2	2 1/2	1/1	0/9	V	3 1/2	2 1/2	1/1	0/9
W	3 1/2	2 1/2	0/8	0/9	X	3 1/2	2 1/2	0/8	0/9
Y	3 1/2	2 1/2	0/5	0/6	Z	3 1/2	2 1/2	0/4	0/6



NOTICE.—Care should be taken in all instances, when ordering, to specify the Crucibles, &c., manufactured by  
**THE MORGAN CRUCIBLE CO. (Sole Manufacturers of Morgan's and Salamander Crucibles), Battersea Works, LONDON, S.W.**

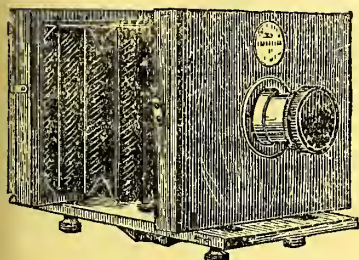


# PHOTOGRAPHIC APPARATUS,

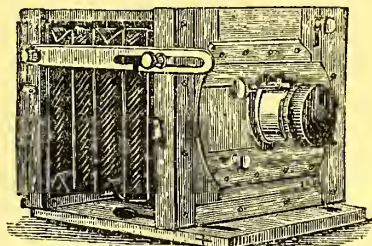
FOR TOURISTS, BICYCLISTS, TRICYCLISTS, ETC.

Over **18,000** Now Sold.

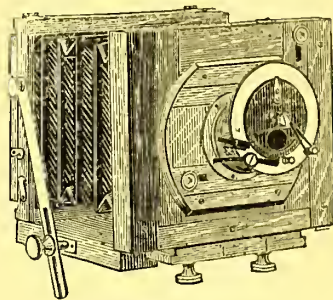
Each Apparatus includes CAMERA LENS and STAND. CYCLE CLIP may be had in place of STAND.



LE MERVEILLEUX.



LE MÉRITOIRE.



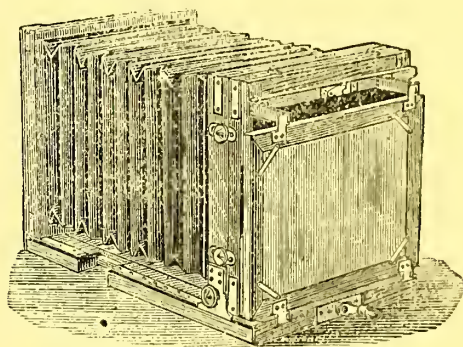
THE INSTANTOGRAPH.

EACH APPARATUS

GUARANTEED PERFECT. LENSES EQUAL

TO BEST MONEY CAN PURCHASE.

	£1	£2	£3	£4	£5
Le Merveilleux .....	1 0	2 2	3 3	4 4	5 5
Le Méritoire .....	1 11 6	3 3	4 10	6 0	7 10
The Instantograph...	2 2 0	4 4	6 6	8 8	10 10
The Ladies' Camera...	1 15 0	3 0	4 5	5 10	7 0
The Patent Camera } (no Lens or Stand) }	2 10 0	4 0	5 0	6 0	7 0



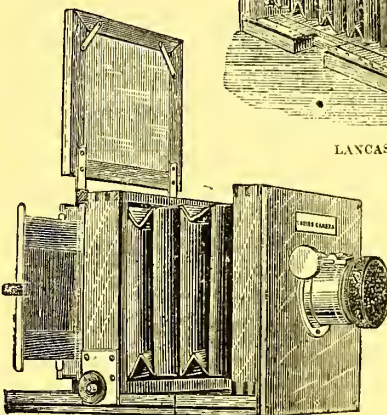
LANCASTER'S PATENT CAMERA.

Sets of Plates, Dishes, Chemicals, Lamp, &c., with full instructions,  $\frac{1}{4}$ , 6/6;  $\frac{1}{2}$ , 12/;  $\frac{3}{4}$ , 20/; 10 by 8, 25/.

Sets of Printing Materials, Sensitised Paper, Printing Frame, Dishes, Toning and Fixing Solution, and full instructions,  $\frac{1}{4}$ , 5/;  $\frac{1}{2}$ , 10/6;  $\frac{3}{4}$ , 15/; 10 by 8, 21/.

Dry Plates,  $\frac{1}{4}$ , 1/6;  $\frac{1}{2}$ , 3/6;  $\frac{3}{4}$ , 7/; 10 by 8, 11/ per doz.

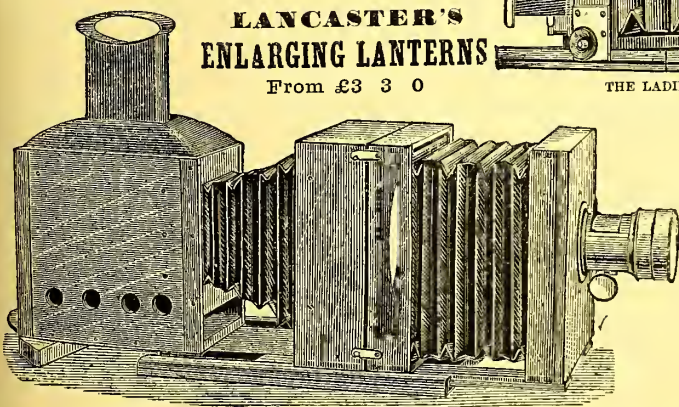
Instantaneous,  $\frac{1}{4}$ , 2/;  $\frac{1}{2}$ , 4/;  $\frac{3}{4}$ , 8/; 10 by 8, 12/ per doz.



THE LADIES' CAMERA.

**LANCASTER'S ENLARGING LANTERNS**

From £3 3 0



LANCASTER'S ENLARGING LANTERN

Illustrated Catalogue

Post Free

to Chemists.

TENTH THOUSAND.

"How to be a Successful Amateur Photographer," by W. J. Lancaster F.C.S. &c., 64 pp., 6 Stamps.

SPECIAL TERMS  
TO CHEMISTS.

**J. LANCASTER & SON, OPTICIANS, BIRMINGHAM.**



# MAY, ROBERTS & CO.,

## 9 CLERKENWELL ROAD, LONDON, E.C.

TEMPORARY ADDRESS DURING REBUILDING OF PREMISES, 9 MOOR LANE, E.C.

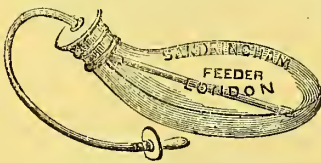
TELEGRAPHIC ADDRESS—"MOAB LONDON."

CATALOGUE OF DRUGGISTS' SUNDRIES, PATENT MEDICINES, &c., SENT POST FREE ON APPLICATION.

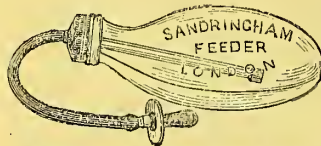
**CARRIAGE ON SUNDRIES.**—Since 1877 we have allowed 5 per cent. discount on orders for £5 worth of "SUNDRIES" in lieu of Carriage. By this arrangement our Friends are enabled to have enclosures sent with our goods, which they were unable to do when we paid Carriage.

**NO TRAVELLERS EMPLOYED**—BUYERS ARE THEREFORE SPARED THEIR EXPENSES.  
**COMPARE OUR PRICES.**

### REDUCED PRICES FOR FEEDING BOTTLES.



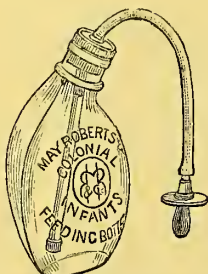
"Sandringham." Earthenware Tops.



"Sandringham." Metal Screw Caps.



"Sandringham." Screw Glass Stoppers.



"Colonial." Earthenware or Wood Tops.

#### Sandringham (1s.)—WHITE, Earthenware Tops—

With White Fittings, each in box, two brushes..per doz.	s. d. 6 0
With Black Fittings, each in box, two brushes..per doz.	6 6
Spare White Fittings ..	3 4
Spare Black Fittings ..	3 10
Spare Bottles .....	1 9

#### Sandringham (1s.)—WHITE, Screw Glass Stoppers—

With White Fittings, each in box, two brushes..per doz.	s. d. 6 0
With Black Fittings, each in box, two brushes..per doz.	6 6
Spare White Fittings ..	3 4
Spare Black Fittings ..	3 10
Spare Bottles .....	2 0

#### Sandringham (1s.)—WHITE, Screw Metal Caps, Nickel plated—

With White Fittings, each in box, two brushes..per doz.	s. d. 7 0
With Black Fittings, each in box, two brushes..per doz.	7 6
Spare White Fittings ..	4 0
Spare Black Fittings ..	4 6
Spare Bottles .....	2 0

#### Sandringham (2s.)—WHITE, Gilt Porcelain Tops—

With Black Fittings and Spare Glass Tube, Shield and Teat, each in box, two brushes..per doz.	s. d. 11 6
Spare Black Fittings ..	5 6
Spare Bottles .....	2 0

#### Sandringham (3s.)—WHITE, Gilt Porcelain Tops and Cut Glass Stopper—

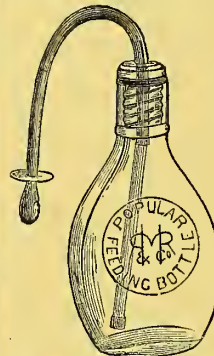
With two sets of Brown Fittings, each in box, two brushes..per doz.	s. d. 19 0
Spare Brown Fittings ..	7 3
Spare Bottles .....	7 3

#### Colonial (6d.)—GREEN, Boxwood or Earthenware Tops—

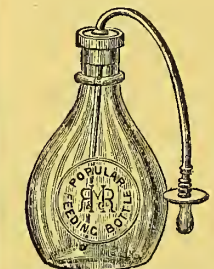
With White Fittings, each in box .....	s. d. 2 10
With Black Fittings, each in box .....	3 1
With White Fittings, 1 dozen in box .....	2 4
With Black Fittings, 1 dozen in box .....	2 7
If with White instead of Green Bottles..per doz. 2d. extra	
Spare White Fittings per doz.	1 4
Spare Black Fittings ..	1 7
Spare Green Bottles ..	1 0
Spare White Bottles ..	1 2

#### Colonial (6d.)—GREEN, Screw Glass Stoppers—

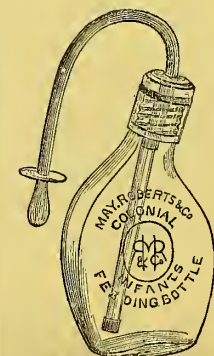
With White Fittings, each in box .....	s. d. 3 6
With Black Fittings, each in box .....	3 9
With White Fittings, 1 dozen in box .....	3 0
With Black Fittings, 1 dozen in box .....	3 3
Spare White Fittings ..	1 6
Spare Black Fittings ..	1 9
Spare Bottles .....	1 9



"Popular." Screw Glass Stoppers.



"Popular." Earthenware or Wood Tops.



"Colonial." Screw Glass Stopper.

#### Popular (6d.)—GREEN, Boxwood or Earthenware Tops—

With White Fittings, each in box .....	s. d. 2 10
With Black Fittings, each in box .....	3 1
With White Fittings, 1 dozen in box .....	2 4
With Black Fittings, 1 dozen in box .....	2 7
If with White instead of Green Bottles .....	2d. extra
Spare White Fittings per doz.	1 4
Spare Black Fittings ..	1 7
Spare Green Bottles ..	1 0
Spare White Bottles ..	1 2

#### Popular (6d.)—GREEN, Screw Glass Stoppers—

With White Fittings, each in box .....	s. d. 3 6
With Black Fittings, each in box .....	3 9
With White Fittings, 1 dozen in box .....	3 0
With Black Fittings, 1 dozen in box .....	3 3
Spare White Fittings ..	1 6
Spare Black Fittings ..	1 9
Spare Bottles .....	1 9

#### Popular (1s.)—WHITE, Earthenware Tops—

With White Fittings, each in box, two brushes..per doz.	s. d. 4 6
With Black Fittings, each in box, two brushes..per doz.	5 0
Spare White Fittings ..	2 6
Spare Black Fittings ..	3 0
Spare Bottles .....	1 2

#### Popular (1s.)—WHITE, Screw Glass Stoppers—

With White Fittings, each in box, two brushes..per doz.	s. d. 4 6
With Black Fittings, each in box, two brushes..per doz.	5 0
Spare White Fittings ..	2 6
Spare Black Fittings ..	3 0
Spare Bottles .....	1 9

#### Colonial (1s.)—WHITE, Earthenware Tops—

With White Fittings, each in box, two brushes..per doz.	s. d. 4 6
With Black Fittings, each in box, two brushes..per doz.	5 0
Spare White Fittings ..	2 6
Spare Black Fittings ..	3 0
Spare Bottles .....	1 2

#### Colonial (1s.)—WHITE, Screw Glass Stoppers—

With White Fittings, each in box, two brushes..per doz.	s. d. 4 6
With Black Fittings, each in box, two brushes..per doz.	5 0
Spare White Fittings ..	2 6
Spare Black Fittings ..	3 0
Spare Bottles .....	1 9



# EXCHANGE COLUMN.

**TERMS.**—Announcements are inserted in this column at the rate of one halfpenny per word, on condition that name and address are added. Name and address to be paid for. Price in figures counts as one word.

If name and address are not included, one penny per word must be paid. A number will then be attached to the Advertisement by the Publisher of THE CHEMIST AND DRUGGIST, and all correspondence relating to it must be addressed to the "Publisher of THE CHEMIST AND DRUGGIST, Colonial Buildings, Cannon Street, London, E.C.," the envelope to be endorsed also with the number. The Publisher will transmit the correspondence to the advertiser, and with that his share in the transaction will cease.

## Dental and Surgical.

Nitrous-oxide gas apparatus, portable, complete with case, 50s. Kay, Crewe.

Three tooth-keys, one with spring bolt, ivory handle, 7s.; one ditto, ebony handle, 5s.; one ordinary, 3s. 6d. Kay, Crewe.

Dentists.—How to manipulate ordinary plaster-of-Paris (6s. per cwt.) to equal in hardness the best superfine sold at the depôts, 5s. for the secret. Beaudiet & Co., Birkenhead Park.

## Drugs and Chemicals.

Potas. iodid, 8s. 6d.; quinine, 4s.; gutta-percha tissue, 8s.; argent. nit. sticks, 3s.; Oswego, 5d.; surgeon's lint, 1s. 9d.; liquid blue, 3s., 6d. Fowler, Portsea.

Homœopathic medicines, all clean and in constant demand.—18 doz. Leath & Ross's 1s., 3s., 6d. doz.; 4 doz. ditto, 9d., 2s., 8d. doz.; 4 doz. Ashtou & Parsons', 1s., 3s., doz.; 6 doz. ditto, 6d., 1s. 4d.; lists free; 10 per cent. discount if lot is taken. Thomson, Queen's Crescent, N.W.

Nine doz. Leath & Ross's tinctures, pilules, and globules, all in perfect condition, 25 per cent. less than Sanger's nett price taken; can be seen; Howard's quinine taken in exchange. Mr. C. Edwards, 1 Endesleigh Gardens, Euston Road.

## Proprietary Articles.

Whelpton's pills, 5s. 1½d., 8s. 5d., 22s., clean. E. Smith, Horncastle.

## Educational.

Set of illegible autograph prescriptions (original), 2s. 6d., as presented to the Pharmaceutical Society of Ireland for their examinations; 30 prescriptions (catch and difficult) given to dispense at Minor during past 12 months, 2s.; 50 questions asked of successful students at last Minor, 1s. 1d.; new "Pharmacopœia," post free 5s. 6d.; lot of cheap, almost new, books; stamp for list. Sandders, Medical Tutor, 6 Rochester Square, N.W.

## Literature.

Kelly's "Directory of Cornwall," published 1833, perfect and clean, cost 15s., will take 6s. Smith, Newport (Mon.).

Eleven volumes of unbound *Pharmaceutical Journals*, ending 1884; would sell for 4l., or 7s. 6d. per volume. Apply, Watt, 155 Comeley Park Street, Glasgow.

Dr. Sheridan Muspratt's "Chemistry," vol. II.; "Year-book of Pharmacy," 1879; and Jarmain's "Qualitative Analysis," each in good condition; what offers? 15/15.

Botany.—The indigenous official plants of the Pharmacopœia, beautifully mounted on cardboard, 7s. 6d.; wild-flowers 7s. 6d. 100. Higginson, New Ferry, Birkenhead.

Howard's "Practical Chemistry," 9d.; Roscoe's "Chemistry," 1s.; Macadam's "Analytical Chemistry," 1s. 6d. B. F., 7 Little North Street, Eastbourne.

"London Flora," Crespiigny, 3s.; "Chemical Handicraft," Griffin, 1877, 5s.; "Qualitative Analysis," Fresenius, 1850, 1s. 6d.; "Medical Chemistry," Bowman, 1s. 6d.; "Perfumery," Piesse, 1855, 4s.; "Practical Pharmacy," Redwood, 6s.; Symond's "Antiseptic Essence," dozen, 3s. Brown, Chemist, North Shields.

Fowne's "Chemistry," late edition, nearly new, 7s.; Huxley's "Physiology," quite new, 2s. 6d.; Roscoe's "Chemistry," quite new, 2s. 6d.; Oliver's "Botany," quite new, 2s. 6d.; Hargrave's "Operative Surgery," 3s. 9d.; Powell's "Medical Electricity," 2s.; "Chemistry no Mystery," by Scoffern, 2s. 6d.; "Hints on Dispensing," by Canning, 2s. 6d.; the lot, 21s. A. E. Deane, 192 Uxbridge Road, W.

Preliminary Works.—Wills' "Preliminary Exercises," 9d.; Creak's "Dictionary to Caesar," 1s. 6d.; White's "Caesar," 8d.; Andrew's "Caesar," map, notes, dictionary, 1s.; "Public School Latin Primer," 9d.; Cayzee's "1,000 Arithmetical Tests, with Answers," 2s. 6d.; Armstrong's "English Composition," 6d.; Colenso's "Arithmetic," 8d.; "Thema," a key to essay writing, 6d.; Morrell's "Grammar and Analysis," 1s. 6d.; Maude's "Biographical Treasury," 1s. 6d.; Judd's "Arithmetical and Metric Tests," 6d. "Minor," 24A Brabant Road, Wood Green, N.

Arnott's "Physics," 2 vols., 3s.; Balfour Stewart's "Physics," 2s.; "Introduction to Science," 8d.; Roscoe's "Chemistry," 1s. 6d.; Willshire's "Botany," illustrated, 8d.; "Toilette and Dental Receipts Book," 1s.; Watts' "Organic Chemistry," 8d.; Carpenter's "Physiology," 1s. 6d.; Carey's "500 Chemical Experiments," 1s. 6d.; Griffin's "Chemical Recreations," 1s.; "Introduction to Botany," coloured plates, 1s.; Graham's "Outlines of Botany," 8d.; Cooke's "Manual of Botanic Terms," without illustrations, 1s.; Judd's "Minor Aids," new, half-price, viz.:—"Prescription Reading," 1s. 6d.; "Progressive Exercises in Equations," 1s.; "Arithmetical Minor Problems," 9d.; "Analytical Chart," 6d.; "Dispensing Exercises," 6d.; "Short Cut to Tinctures," 6d. "Minor," 24A Brabant Road, Wood Green, N.

## Soda-water Plant.

Barnett & Foster have some second-hand soda-water machinery of their own for sale. Apply, 26T Eagle Wharf Road, Hoxton, N. Second-hand soda-water plant—several in stock. Address, Bratby & Hinchliffe, Sandford Street, Ancoats, Manchester.

## Shop Fittings.

Maw's sponge stand, pyramid, brass, 4 ft. 6 in.; offers wanted, Baker, Stourbridge Terrace, S.W.

Two upright carboys, cut stoppers; quantity store and lozenge bottles, cheap; 10 lbs. pot. iod., 8s. 6d. Cant, High Street, Shadwell, London.

Sixteen 1-gallon show-carboys; Allen's portable Turkish bath; a perfectly-fitted medicine chest, solid leather. Rogers, Chemist, Warminster, Wilts.

Looking-glass, 57 in. by 33 in., in broad, handsome, moulded mahogany frame; mahogany wall-cases; bottles and jars; store-bottles &c. A. B. C., 112 High Street, Woolwich.

Counter case, as Maw's fig. A 17, 3 ft. 10 in. by 17 in., shelf 6 in. extra, 3l.; toothbrush case as Maw's fig. A 10, not revolving front or mirror on top, 16 in. by 12 in., 30s.; ruby outside lamp and iron, Maw's fig. 9, 3l. Feltwell, Chemist, 91 Hammersmith Road, W.

Closing of Branch.—200 mahogany drawers, with glass knobs and bevelled glass gold labels, 10 show globes, several hundred gold labelled shop rounds, window fittings, glass cases, signs, shelving, counters, 200-gal. petrol tank, pump and piping for ditto, &c., &c. Fredk. Gibson, Gooch Street Birmingham.

Second-hand Glass.—Specie jars and covers—Two 2½ in. scrolls and plinths, 65s.; 2 23 in. arms and stands, 65s.; 2, 25-in. scrolls, 60s.; 1, 31-in. scroll, glass cover, 35s.; carboys, cut stoppers—1, 16 gal., 40s.; 2, 14 gal., and stands, 3l. 10s.; 3, 5 gal., 37s. 6d.; 2, 4 gal., and stands, 17s.; 3, 3 gal., 1s. 2d., and stands, 27s. 6d.; 10½ doz. rounds, washed, no labels, and 47 mazarine blue pots, ditto, one-third discount off list; 1 pair drug-scales 10s., 1 pair 20s. Hawke & Son, London.

For Chemists and all trades.—Shop fittings; counters; glass-fronted counters; shop drawers, with and without labels; lockers, shelving and cornice above; bent, flat, and upright counter cases, all sizes and designs; dispensing cases; screens; desks; sponge cases; centre and exhibition cases; soda-water stands; toothbrush and dentist show-cases; office and counter desks; piano-shaped counter and wall cases; wall cases, all designs; window enclosures; shop doors; carboys; specie jars; gold-labelled shop bottles and jars; acid and oil bottles, and all trade utensils. Shops are fitted up, and goods supplied to any amount on the hire-purchase system, if required; shop fittings and utensils bought or taken in exchange. Lloyd Rayner, Showrooms, 197 City Road, E.C.



Second-hand Fittings for Shop.—14 ft. Square Mahogany-fronted, except where otherwise described, 15 ft. 6 in. dove-tailed drawers, coverboard deal lockers, 10*l.*; cornice and shelving, 3*l.* 10*s.*; plate-glass dispensing screen, 4 ft. 6 in. by 2 ft., 3*l.* 10*s.*; wall-case, sheet-glass, deal cupboard, 6 ft. by 8 ft. 10 in., 6*l.* 10*s.*; 2 counters, 14 ft. 8 in. run deal fronts, 26 drawers and shelves, 8*l.* 5*s.*; sheet-glass case, 3 ft. 5 in. high, 30 in. wide, 2*l.*; desk and case, 45*s.*; 2 counter cases, circular plate-glass, 36 in. by 12 in. 50*s.*, each; plate-glass, enclosure front, 88 in. long, 69 in. high, 3*l.* 10*s.*; 15 ft. wall-counter, 5 large drawers, deal cupboards, 3*l.*; 2 mahogany chairs, 20*s.*; 3-light chandelier, 25*s.*; 2.2-light pendants, 17*s.* 6*d.*; 3 gas brackets, 10*s.* 6*d.*; 3 4-gallon carboys and stands, 37*s.* 6*d.*; 140 stoppered rounds and pots, labelled, 5*l.* 6*s.*; 51 squats, 14*s.* 4*d.* Hawke & Son, London.

11 ft. range 98 oak-fronted drawers, gold labelled with glass knobs and wall case over, second-hand, 7*l.* 10*s.*; 14 ft. range 78 mahogany drawers, gold labelled, with lockers under and shelving over, 8*l.* 10*s.*, second-hand; nest 32 drawers, 4 ft. by 30 in., labelled, 42*s.*; nest 26 mahogany drawers and lockers, mahogany, 5 ft. 6 in. long, 52*s.*; window enclosure, 9 ft. by 2 ft., 50*s.*; 4 4-gallon carboys, new, 45*s.*; 24 2-gallon black store bottles with handsome gold labels and caps, 48*s.*; 2 8-gallon carboys, cut stoppers, 17*s.* 6*d.* each, new; 2 specie jars, large, second-hand, 20*s.* each; new 6-ft. mahogany wall case mirror centre, very handsome, 12*l.*; 10-ft. counter filled with large drawers, 50*s.*; 15 doz. shop rounds with burnt-in labels, cheap; dispensing screen, ebonized, mirror centre and marble slab, 6*l.* R. Tomlinson & Sons, Bond Street, Birmingham, removed from St. Paul's Square.

### Formulæ.

Glycerine jelly, an unequalled recipe, every chemist should have it, price 2*s.* 6*d.* Ramsden, Chemist, Southgate, Wakefield.

Every chemist should make "starch polish," commands immense sale; price 2*s.* 6*d.* Ramsden, Southgate, Wakefield.

Soluble essences (non-alcoholic, for mineral waters); lime-juice cordial; chlorodyne (perfectly transparent); cascara sagrada cordial; concentrated waters (1 to 40); essence rennet (permanent, no salt); hop bitters; liquor carbonis (resembles Wright's); chemical liquors for syrups (stable); lao rosarum (inseparable, made in few minutes); ink (resembles "Dichroic"); elixir phosphori, invigorating tonic; sponges bleached (golden yellow); liquid dentifrice (like "Floriline"); marking-ink, *sine* silver, writing executed defies chemicals; saline (Eno's or Lamplough's); magic neuralgic drops; lime-juice and glycerine (white as milk, inseparable); pill-coating, pearly white, no mastic or mucilage; crimson marking-ink; hair-restorer, colourless, no deposit, *sine* silver; oleum flavum concentratum, stable colour for pomades; soluble ginger (like Hay's); liquor copaibæ comp. c. buchu et matico (like Richardson's); liquor santal. flav. (resembles Hewlett's); taraxicum podophyllin, iron quinine (both resemble Pepper's); many perfumes, also toilet requisites; state wants; lists issued; all inexpensive to prepare; 5*s.* each (5 for 1*l.*); analyses undertaken. Readers are warned against cheap substitutes. I was first to advertise formulæ in this journal. "Analyst," Mr. Warnes, 6 Rochester Square, N.W. (Only prepaid inquiries answered.)

Cough mixture, very effectual (resembles Crosby's); also formula for preparation resembling Rooke's Elixir; 2*s.* 6*d.* each. Stephenson, Chemist, 84 Barkerend Road, Bradford, Yorks.

The following reliable recipes, 9*d.* each, or 6*s.* dozen:—Latest perfume, lavender water, glycerine jelly, glycerine cream, glycerine cough linctus, liquid dentifrice, chilblain cure; children's gripe water, lupuline bitters, worm syrup, hand lotion, latest dentifrice, pomades, &c.; send for list free. A. Lee, 10 Queen Street, Chesterfield.

Following supplied for 1*s.* 6*d.* each, or any 3 for 48 stamps:—Cherry tooth paste, lavender water, worm syrup, butter powder, teething powders, ess. bouquet, balsam of aniseed, whooping-cough mixture, Churchill bouquet, pile powders, starch polish, eau de Cologne, liquid cochineal, Persian essence, camphor ball, cough lozenges, marking ink; all the above are well-tried recipes. Ramsden, Southgate, Wakefield.

Reliable Recipes, wanted daily, all guaranteed genuine, as supplied to over 1,000 chemists at home and abroad; particulars of any on application; detailed list of 300, post free. Note my advertisements these last four years in this Journal. "Satisfaction guaranteed." All communications are strictly confidential, or I could give over 500 testimonials.—"Glycerine Cream," an elegant preparation for roughness of skin, invaluable to all, certain sale; "Entirely New Remedy for Toothache," gives instant ease, not injurious to other teeth; "Nigerine," jet-black, water-proof patent blacking, cheaper, sweeter and better than Nubian; "Digestive Relish," best and cheapest sauce in creation, from 3*s.* gallon; "Lupuline Bitters," equal to American in every respect, one-third price; "Limes and Glycerine," elegant, creamy, snow-white, quite inseparable, pronounced best in market; "Foaming Dentifrice," resembles Floriline, costs one-eighth; "Rheumatic Embrocation," most excellent, cannot be surpassed in cheapness and efficacy; "Pile Powders and Ointment," cure and prevent hæmorrhoids; "Quinine and Iron Tonic," bright and unchangeable, resembles Pepper's; "Worm Syrup," entirely vegetable, pleasant and rapid action; "Ring-worm Specific," certain rapid cure; "Tie Pills," unequalled in efficacy, many testimonials; "Chlorodyne," inseparable, perfectly soluble, quite equals Brown's; "Marking Ink," indelible, no waste, creditable to seller; "Cryptosmosis," certain speedy cure for gleet, &c.; "Mist. Gonorrhœa" (capivi), nauseous taste masked, unfailing remedy; "Hair-restorer" (*sine* sulphur), clear, sweet, economical, confidently recommended; "Liver Pills" (vegetable), gentle action, always effectual; "Lavender Water," superb fragrance, lasting, equals Sainsbury's; "Occasional Pills" (for ladies), most reliable, preferred to Widow Welch's; "Essence for Deafness," simple and effectual. Price 1*s.* 1*d.* each, 3 for 2*s.* 6*d.*, 25 for 1*l.* post free, with full particulars for making, &c., by T. Brooks, Chemist, Louth, Lincs.

### Miscellaneous.

Good tonic violin in case, and bow, for 30*s.* Webb, Chemist, Calne, Wilts.

Fifty 5-gall. iron drums, equal to new, 2*s.* 4*d.* each. Kemp, Horncastle.

"Year-book Pharmacy," 1883, 1884, 1885; several 40-gall. oil-cisterns. E. Woolridge, Cradley Heath.

Orange quinine wine made with Howard's quinine, B. P. proportions, 20 galls, part or all at 5*s.* per gal. Floyd, Bury St. Edmunds. Howard's quinine, carriage paid, 1 oz. 4*s.* 3*d.*, 4 oz. 15*s.* 7*d.*, quantity less. Evans, 52 Brook Street, Chester.

White beeswax, pure sun-bleached Calcutta, with analysis. Richard Baker & Co., 9 Micing Lane, London.

Safe (massive wrought iron), with shelf, two drawers, Chubb's lock, duplicate keys, 67*s.* W. Butcher, Chemist, Blackheath, S.E.

Forty gall. cistern, galvanised iron, with tap, 15*s.*; 30-gall. galvanised-iron cistern, narrow neck, with tap, 15*s.* Crook, Mirfield.

Cheap; 7 barrels bloomless mineral oil; 20 jars powdered ammonia, containing 10 lbs. each. Sneath, Chemist, Newark.

Twelve Maw's single trusses, 12*s.* 6*d.*; 12 catheters, 4*s.* 6*d.* Fryer, 19 The Terrace, Camberwell.

Dozen floral bell dentifrice, 14*s.*; dozen eclectic, 5*s.*; cwt. Calvert's carbolio soap, lb. bars, 27*s.*; 3 dozen Wheeler's jelly for 8*s.* "Chemist," 17 High Street, Horncastle.

Sponge sent on approbation; few sundries; scent and other bottles; fireproof safe; coffee-mills; 5 glazed doors; hooded perambulator; Maw's tooth-brush case. 156/40.

I will send 1 doz. boxes Maw's floats, perfect, 6 months, carriage paid, for 1*s.* 6*d.*, 1 gross 12*s.*, or exchange. Bolton, Chemist, Southgate.

"Dirty Boy," in terra cotta, good as new, and carriage paid; also 2 circular glass stands, complete with artificial soaps; offers to J. Eastman, Chemist, Tottenham.

Ear cornets, 5*s.*; ol. metha pip. ang., 6*s.* 6*d.* 4 oz.; ol. santal flav. ang., 5*s.* 4 oz.; ol. amygd. essent. ang. 5*s.* 4 oz.; Taylor's lint, 2*s.* lb.; Maw's surgeon's lint, 1*s.* 6*d.* lb.; uranium nitrate, 1*s.* 6*d.* oz.; iron iodide, 1*s.* oz.; iodine, 1*s.* oz.; ol. carn. 1*s.* 4 oz.; ol. pimentæ 3*s.* 4 oz.; ess. bergamot, 7*s.* 6*d.* lb.; pulv. opii, 4*s.* 4 oz.; cash or exchange. Surplus stock bought or exchanged. Jones, Chemist, 69 Essex Road, Islington, London.

### WANTED.

Pears' "Dirty Boy"; state lowest price. 148/5. Magnetic goods; state maker and price. 150/1. Bentley and Trimen's botanical plates, complete set; state lowest price. 148/10.

One dozen 2-lb. ointment-jars; ½ dozen 4-lb. ointment-jars; cheap. A. McIver, Dingwall. A 15-light gas metre, in good condition, for cash. "Chemist," 34 High Street, Putney.

Screen for postal department for branch post office; send sketch. 8 High Street, Wolverhampton.

Show-carboy about 24 inches high; Leath. Ross's 4-guinea homeopathic case. Robbison, Chemist, Haworth, Yorkshire.

Specific-gravity bottles, thermometers for liquid graduated flasks, graduated cylindric glasses, burettes, retorts, and any good chemical apparatus. Saml. Lawrence, Obs.

Gilt top for specie jar, plain, 10 in.; Avery weighing-machine, with weights up to 1 cwt.; a 4-gall. pear-shaped carboy, with glass stopper; above must be in good condition and cheap. Flemous, Dunstable.

Three carboys, 3 or 4 gallons; pill machine 1 doz. labelled jars, about 2 lbs.; sm. coloured street lamp, without words; a few dental instruments; 20 and 40 oz. label rounds; must be cheap. "Drug," 83 Victoria Road, Aston, Birmingham.

### Addresses & Information Wanted.

F. Cottman, Chemist, late of Olney, and H. Baker, Chemist, late of Ramsgate. M. Roberts & Co., 9 Moor Lane, London, E.C.



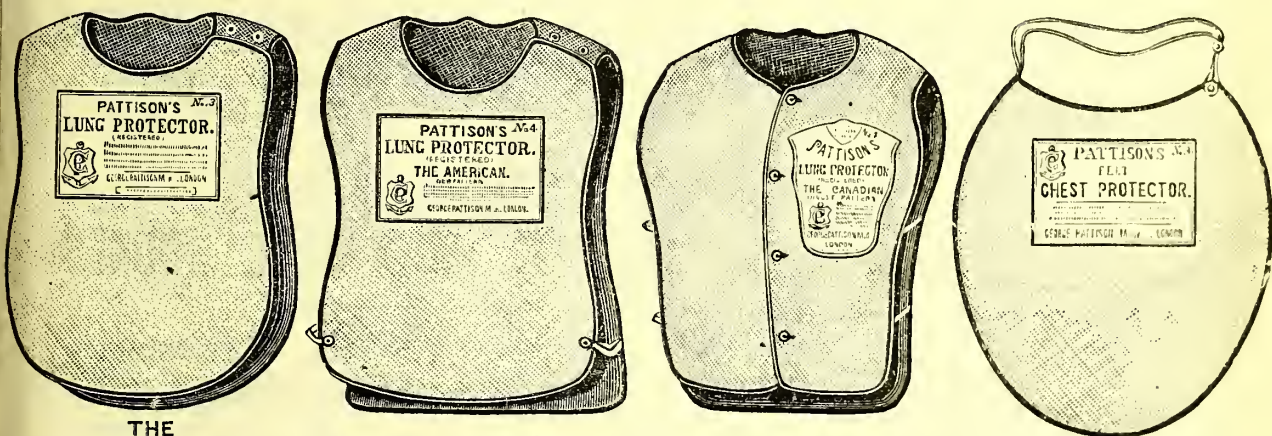
# 1885. NINETEENTH SEASON. THE LUNG PROTECTOR

REGISTERED  
LUNG  
PROTECTOR  
TRADE MARK

(REGISTERED).

*"An Article of Acknowledged Excellence."*

The "LUNG PROTECTOR" continues to be made only from the same Fine Soft Wool which has always been used since its introduction 19 years ago. Chemists are cautioned against the coarse and inferior imitations that are pushed upon them, the sale of which can only lead to ultimate loss of trade.



THE  
LUNG PROTECTOR.  
ORIGINAL PATTERN.

LUNG PROTECTOR.  
THE AMERICAN.

LUNG PROTECTOR.  
THE CANADIAN.

CHEST PROTECTOR.

## PRICES:

	No. 0	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	
Original Pattern, Seven sizes	14/-	18/-	26/-	34/-	42/-	52/-	60/-	per doz.
The American, Six sizes	...	20/-	28/-	36/-	44/-	54/-	62/-	"
The Canadian, Six sizes	...	22/-	30/-	40/-	50/-	60/-	70/-	"

## FELT CHEST PROTECTORS.

Prices...	No. 00	No. 0	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	
...	4/-	6/-	8/-	10/-	12/-	16/-	20/-	24/-	per doz.

All in Scarlet and White, and made in same Wool as the "Lung Protector."

Terms: All Wholesale Houses either allow a large Discount for Cash, or quote the goods at Reduced Net Cash prices.

FELT CHEST PROTECTORS, C QUALITY, single and double, each in five sizes.  
At lower prices than above, and equal to BEST of other makers, but are NOT recommended.

**GEORGE PATTISON,**  
INVENTOR AND MANUFACTURER,  
139 ST. JOHN STREET ROAD, LONDON, E.C.



# Notice to the Trade.

## GENUINE EAU DE COLOGNE

MANUFACTURED BY

JOHANN MARIA FARINA,

JULICH'S PLATZ No. 4,

A DESCENDANT FROM THE

*Original Manufacturer of this Valuable Perfume,*

IS KNOWN THROUGHOUT THE WORLD AS

## No. 4.

AND SOLD BY ALL THE LEADING WHOLESALE HOUSES.

In 2 oz. Bottles.

In 4 oz. Bottles.

In 6 oz. Bottles.

In 8 oz. Bottles.

In reputed  $\frac{1}{2}$ -Pint, Wickered.

In reputed Pint, Wickered.

In reputed Quart, Wickered.

In 4 oz. Bottles, Wickered.

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COLOGNE-ON-THE-RHINE.

By Special Appointment to the Prince of Wales and to several Imperial and Royal Courts.

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Sole WHOLESALE Agents for the United Kingdom and Colonies,

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ESTABLISHED 1810.

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## PORTABLE METAL SPRINKLER STOPPER,

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GLASS BOTTLES FOR PERFUMERS AND OTHERS.

### STEAM FACTORIES:

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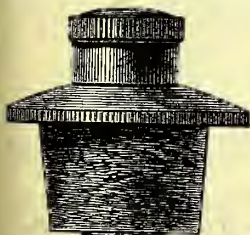
COLLAPSIBLE TUBES OF ALL SIZES.



For Perfumes, Artists' Colours, Soaps, Cosmetiques, Creams, Oils, Varnishes, &c. These Tubes are inexpensive and portable, and may be applied to many useful purposes besides those above mentioned.

SOLE MANUFACTURERS AND PATENTEES OF

## THE PORTABLE METAL SPRINKLER STOPPER,



With Cork fitted thereon for bottles of any size, and having apertures of various dimensions, especially adapted for Perfumes, Hair Washes, Lime and Glycerine Essences, &c. These handsome stoppers give a character and finish to the most ordinary bottles to which they may be applied. Gilt or plain; and put up if required in handsome glass lid boxes, suitable for shop counters and show cases, at moderate prices.



## THE "TORSION" PATENT SPRINKLER.



No. 18a.

The two designs, Nos. 18a and 19a, are those to which we direct special attention, as sizes being in general use; other sizes will follow promptly to meet all requirements, on which Caps with two or more holes will be introduced to meet the public taste. Particular attention is called to the latest improvement in our Patent Metallic Stopper, the "Torsion."

This New Stopper adheres to the design of the original patent, which has been universally acknowledged as an ornamental and inexpensive article for the Toilette, as possessing all the advantages of a "Permanent and Indestructible Stopper, suitable

for Bottles of all Sizes and Shapes," with the additional security it affords, that the Cap can never be entirely unscrewed, consequently it cannot be lost. It is specially effective as a Sprinkler, while giving a more prompt and copious, yet economic, supply, through the improved action of the Cap. Such combined advantages, in an article of exquisite finish, have long been desired, and it is thus submitted for general approval, and its usefulness when tried will be appreciated by all.

Illustrations, Price Lists, &c., can be had on application, or through any Wholesale House in town or country. All Orders received direct will be promptly attended to.



No. 19a.

**CAUTION.**—All Stoppers of our Manufacture are made of Pure Tin, and have the name of H. BROOKS & CO. stamped on the under side of the rim.

All Tubes are made of Pure Tin unless specially ordered of Mixed Metal. from the smallest size up to 13 in. by 2½.



# EAU DE COLOGNE

OF THE MOST ANCIENT DISTILLER,

## JOHANN MARIA FARINA,

*Opposite the Julichs Place, COLOGNE.*

ESTABLISHED A.D. 1709.

PRIZE MEDALS:—LONDON, 1851 AND 1862; OPORTO, 1865; PARIS, 1867; VIENNA, 1873.

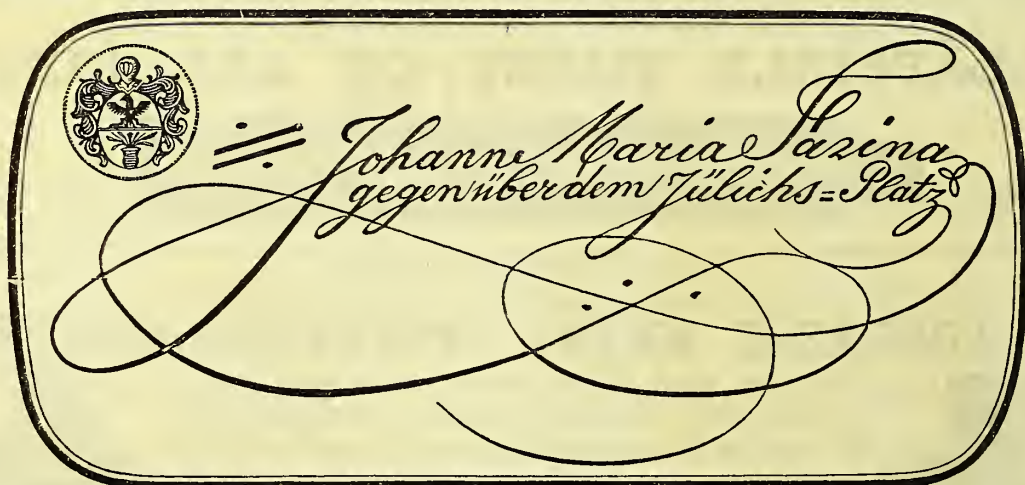
By appointment, Sole Purveyor to Her Most Gracious Majesty Victoria, Queen of Great Britain & Ireland; Their Royal Highnesses the Prince and Princess of Wales; William, King of Prussia;



Albert II., King of Saxony; Alexander II., Emperor of Russia; Francis Joseph, Emperor of Austria; Lewis, King of Portugal; H.R.H. Frederick William, Crown Prince of Prussia.

In consequence of increasing inquiries from the Colonies for my Eau de Cologne, the only genuine, I beg to submit my Price Current.

At the same time I beg to call special attention to the following facsimile of my Trade Mark, for the protection of which I have instituted thirteen suits in the High Court of Chancery, all of which have been decided in my favour.



All similar Labels being more or less imitations of the same, I shall proceed as before against all person selling or exposing for sale any such imitations.

I only prepare one quality of Eau de Cologne. This quality never varies in the slightest degree, and there has not been the smallest change in the manufacture since the year 1709, when it was invented by my ancestor.

Orders equal to at least 12 dozen short bottles will be promptly executed at 12s. 6d. per dozen, against my bill drawn at three months from the date of invoice, delivered free on board the export ship, at Rotterdam, Antwerp, Hamburg, or Bremen, no charge being made for the case and packing, but insurance charged extra. 7½ per cent. discount is allowed for orders equal to at least 100 dozen, but on no smaller quantities.

I may add that, as I do not draw on the Colonies, all Orders must be accompanied by a credit on some London House, or permission to draw on same at three months.

The Goods can also be shipped in transit through London at a very small additional expense, full particulars of which may be obtained of my Sole Agents for Great Britain and Ireland:—

### MESSRS. J. & R. McCracken,

No. 38 Queen Street, Cannon Street, London, E.C.

The following are the sizes of my bottles:—

No. 1. Long Green Flasks	...	...	...	...	...	12 bottles	} to one dozen.
" 2. Short White Bottles	...	...	...	...	...	12 "	
" 3. Double ditto	...	...	...	...	...	6 "	
" 4. Wickered Bottles (small)	...	...	...	...	...	8 "	
" 5. ditto (medium)	...	...	...	...	...	4 "	
" 6. ditto (large)	...	...	...	...	...	2 "	

JOHANN MARIA FARINA,  
OPPOSITE THE JÜLICH'S PLACE.



**IMPORTANT REDUCTION in the WHOLESALE PRICE of LAMPS,  
FROM OCTOBER 1, 1884.**

# SAMUEL CLARKE'S PATENT PYRAMID NURSERY LAMP FOOD WARMERS

**MOSCOW EXHIBITION, 1872,**



1st Award, First Grand Silver Medal to Samuel Clarke, London, for his Patent Pyramid Night Lamp Food Warmer.

2nd Award, First Grand Silver Medal to Samuel Clarke, London, for his Patent Pyramid Night Lights.



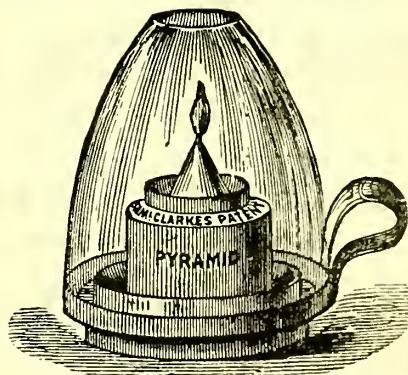
**PRIZE MEDAL AWARDED, LONDON, 1873.**

**PRIZE MEDAL AWARDED, PARIS EXPOSITION, 1867.**

**SILVER MEDAL AWARDED AT THE HEALTH EXHIBITION, SOUTH KENSINGTON, 1884.**



Patent Pyramid  
**NIGHT LAMPS.**  
THE BURGLAR'S HORROR!!



**GOLD MEDAL,**  
World's Exposition, New Orleans.

- No. 1 Holds Half a Pint of Food, besides Water.
- No. 2 Holds Three-quarters of a Pint Food, besides Water.
- No. 3 Holds One Pint Food, besides Water.

Clarke's Hot-water Lamps.

" Pyramid Night Lamps, Lacquered or Bronzed.

" " Lights.

**EXTRAS.**—Porcelain Panakins, Lids, Tin Panakins, Clear Glasses, Roughed ditto, Opaline ditto.

For Terms and Prices apply to the Patentee—

**PATENT "PYRAMID" NIGHT LIGHT WORKS,**  
CHILD'S HILL, LONDON, N.W.

AMERICAN DEPOT: 25 & 27 EXCHANGE ALLEY, NEWARK, NEW JERSEY, U.S.A.



**"LA BRILLANTINE"**

(REGISTERED).

SOLD IN 6d. AND 1s. BOXES.

**METALLIC POWDER**

Is the best, cheapest, and most effective Powder for cleaning and polishing Metals and Glass (especially Brass). It is used by the Life, Horse, and Dragoon Guards, the Fire Brigades, &c., &c.

PROPRIETORS—

**J. F. BAUMGARTNER & CO.,**  
22½ NEWMAN STREET, OXFORD STREET,  
LONDON, W.

**ICING AND KALI SUGAR.**

SAMPLES ON APPLICATION TO

**W. HOSKIN,**

SUGAR MILLS, NEW STREET, HUDDERSFIELD.

**WHICH IS CHANGED BY HEAT TO A JET BLACK.**

Put up for Retail Sale in 6d., 1/, 2/, 2/6, &amp; 5/ Bottles.

Also Barber's Concentrated Liquid **COCHINEAL**, for Colouring Jellies, Custards, &c.

Put up in 6d. and 1/ Bottles.

MANUFACTURED ONLY BY THE PROPRIETORS—

**G. BARBER & CO., 6 Worcester Drive, Club Moor, LIVERPOOL.**

Can be obtained through any of the Wholesale Firms, or from the Proprietors, G. BARBER &amp; CO., Club Moor, Liverpool.

**SPARKLING FROST**

FOR

**CHRISTMAS DECORATIONS, &c.**

6d. &amp; 1s. Packets, 3s. 9d. &amp; 7s. 6d. doz., post free.

**DIAMOND POWDER FOR THE HAIR.**

1s. Packets, 7s. 6d. doz., post free.

**CUBLEY & PRESTON,**  
4 HIGH STREET, SHEFFIELD.**HELIOTROPE ESSENCE.**

Extract from "THE CHEMIST AND DRUGGIST,"  
November 15, 1884.

"Mr. EDWIN R. BIGGLESTON, Chemist, of Canterbury, whose perfumes, as we have before stated, have acquired favour in royal circles, has lately brought out a very fine and true representation of the **HELIOTROPE**, both as a liquid and a sachet perfume."

The *Queen*, the *Ladies' Newspaper*, remarks: "Edwin R. Biggleston's Heliotrope Essence is delicate and durable, can be well recommended."  
The *European Mail* pronounces it to be "very choice."

12s. per lb.; 7 lbs. at 11s. 6d. per lb., net cash

**OKELL'S ORIGINAL MONABOUQUET**

Retail, 1/, 1/9, and 3/6; Wholesale, 7/, 12/, and 22/6 per doz.

This much-admired Perfume (prepared by the Widow of the late Joseph Okell), may be obtained from the leading Patent Medicine Houses, Wholesale Druggists, and Druggists' Sundry Dealers.

Applications for WHOLESALE Agencies to be made to the SOLE CONSIGNEE **THOMAS WEST, Chemist, 61 Chester Road, Stretford, Lancashire.**

**USEFUL AND NOVEL PRESENTS****ASHWORTH'S NEW PATENT "METALLIC COMB-BRUSH."**

SET WITH FINE STEEL WIRES AND ENCLOSED WITH BRISTLES. These brushes are delightfully cool to the head, producing a most agreeable sensation, and will penetrate the most luxuriant hair without injury. They are altogether machine-made: the black handles are covered with a coating of Japan burnt on and then polished. These handles are also in solid pieces, and hence will not fall apart as in the case of brush handles covered with veneer. The latter brush shows a most remarkable development in metallic brush making. It is made of fine hard drawn steel wires, about the thickness of ordinary bristles. This penetrates, SMOOTHS, and FIXES THE HAIR. It is, to express the words of a user, "Simply perfection as a hair brush, and must, when known, take the place of the bristle brush for toilet uses." Send for a SAMPLE BY POST AND TRY IT.

Prices of Metallic Comb-Brush, post free.

Ladies' and Gentlemen's Black Japan	1/6, 1/9, 2/0
" " Lionite-figured	1/9, 2/0, 2/3
" " Ivory-coated	1/6, 2/0, 2/3
Gentlemen's Black Japan, Military Style	2/0, 2/6, 3/0
Dog, Cattle, and Horse Brushes	

New Patent Fine Steel Comb-brush with or without bristles, post free.

Ladies' and Gentlemen's Black Japan	1/9, 2/0, 2/3
" " Ivory-coated	2/0, 2/3, 2/6
Gentlemen's Black Japan, Military Style in fine steel	
only, without bristles	2/3, 2/6

These brushes are now enclosed with bristles in order to give them a more finished appearance. They can, however, be had without the bristles, but all orders for the former must quote the letter "B" following the number of brush required, as "Fine Steel Black Japaned No. 8 B," or "No. 9 B," &c.

All Goods are forwarded safely packed in Neat Boxes.

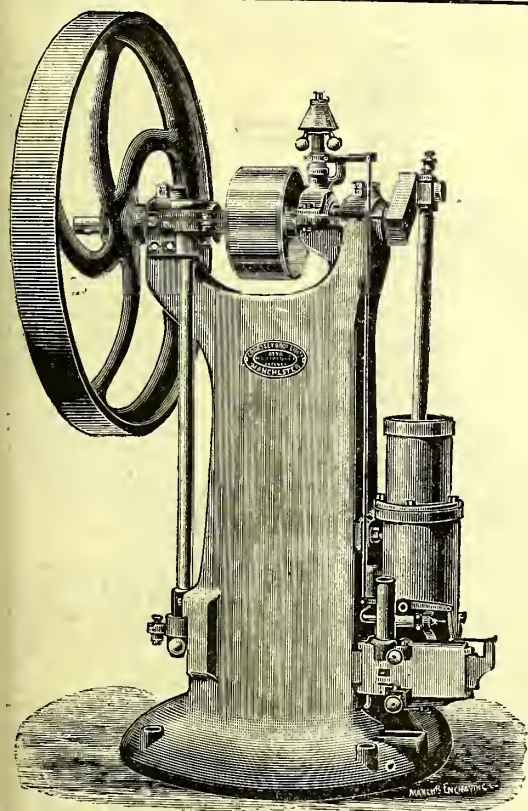
**ASHWORTH BROS. MOSS BROOK WORKS,**  
COLLYHURST, MANCHESTER, ENGLAND.

USEFUL AND NOVEL PRESENTS

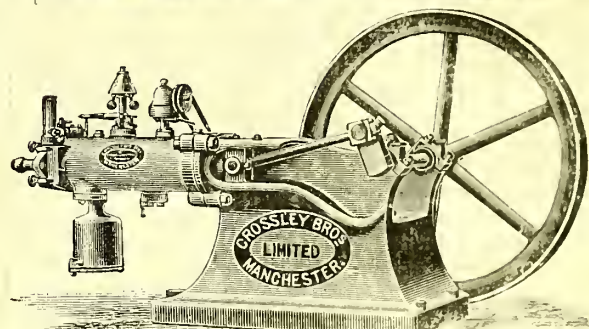
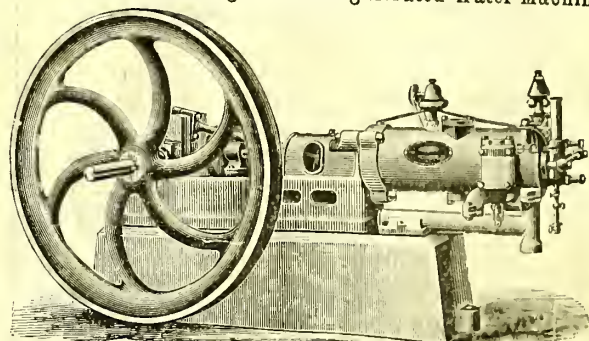
USEFUL AND NOVEL PRESENTS



# THE "OTTO" GAS ENGINE.



*Consumption of Gas 25 to 75 per cent. LESS  
than in ANY other Gas Engine per Brake H.P.  
About 200 Engines driving Aerated Water Machines*



**OVER 15,000 IN USE.**

**29 Gold Medals. 35 Silver & Bronze Medals.**

**CROSSLEY'S NEW VERTICAL "OTTO" ENGINES.**

*Requiring very little ground space.*

**CROSSLEY'S PATENT SELF STARTER.**

*The Safest, Simplest, and Best.*

**CROSSLEY'S PATENT TWIN ENGINES.**

*Impulse every revolution. The steadiest running Gas Engine yet made.*

*THE ONLY GAS ENGINE WHICH RECEIVED A GOLD MEDAL AT THE PARIS ELECTRICAL EXHIBITION.*

**CROSSLEY BROS., LIM., OPENSHAW, MANCHESTER**

London Office: 24 POULTRY, E.C.

Glasgow Office: 19 RENFIELD STREET.



See also pages 65, 76, Cover iv.



**PRIZE MEDALS:**

LONDON, 1862, 1873-74; PARIS, 1867, 1878; VIENNA, 1873; PHILADELPHIA, 1876; CAPE, 1877; FIRST AWARD, SYDNEY, 1879-80; FOUR PRIZE MEDALS, CALCUTTA, 1884.  
LATEST AWARDS:—3 GOLD, 2 SILVER, AND 2 BRONZE MEDALS, INTERNATIONAL HEALTH EXHIBITION, LONDON, 1884.

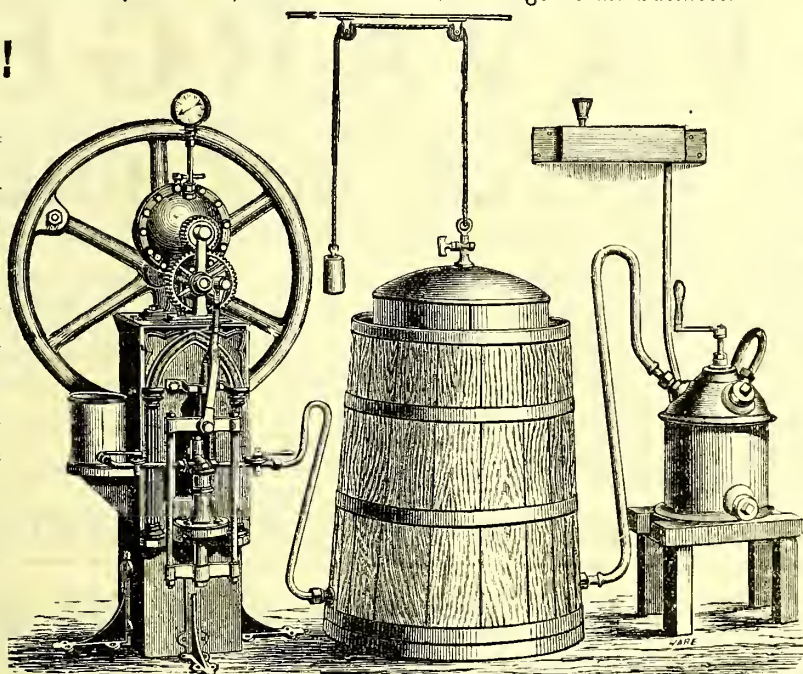
ATTENTION IS CALLED TO

**THE "PETITE" SODA WATER MACHINE.**

*Specially designed for Chemists and Druggists, Hotel Keepers, Coffee Taverns, Refreshment Houses, Confectioners, and others doing a large retail business.*

**OBSERVE!!!**

This Machine — originally introduced by us about 15 years since — has lately been badly copied and brought forward as a novelty by the usual unscrupulous "copyists."

**NOTE!!!**

Those contemplating the manufacture of Mineral Waters should not be deceived into buying cheap and worthless machinery. They should not forget the fact that Soda-water Machinery like watches can be made at any price.

**CAUTION.**—See that our Name is engraved on each Machine.  
**PRICE COMPLETE, £30.**

This machine is capable of producing about 1,000 large bottles per day. It comprises a strong gun-metal pump, with valve-box at top; a strong copper globe, made to open if required, and fitted with blow-off valve, with connection for bottling machine; the agitator driven by toothed wheels; solution pan, &c., the whole mounted on a massive cast-iron stand; a strong oak tube, iron bound; copper bell with the blow-off cock at top, pipes, and connections, forming gasometer; stout lead generator, with tinned copper agitator; gun-metal fittings and pipes; syphon box and pipe for supplying acid to generator; and all necessary requisites, including spanners to fit every bolt and nut. FULL DIRECTIONS AND RECIPES SENT WITH EACH MACHINE.

**PRO FORMA INVOICE FOR COMPLETE PLANT:—**

1 "Petite" Soda-water Machine, with pipes, connections, spanners, gauges, &c. ... ..	£30	0	0
Patent Filling Machine, for Foster's Patent "Intermittent" Screw-stoppered Bottle (without Syrup Pump)... ..	10	10	0
(Syrup Pump extra, £8 8s.)			
5 gross Foster's Patent "Intermittent" Screw-stoppered Bottles, at 14s. ... ..	3	10	0
5 gross Stoppers for ditto, at 12s. ... ..	3	0	0
10 lbs. each kind of Concentrated Compounds, for Lemonade, Ginger-beer, Ginger-ale, and Orangeade, containing all ingredients except sugar ... .. at 2s. 6d. per lb.	1	5	0
1 Hand-brushing Machine, for Bottle-washing ... ..	1	10	0
Packing all the above for Export, extra, £3.		£49	15 0

Bottles, for Corks, from 13/6 per gross. Corks, from 2/- per gross.

**CODD'S PATENT BOTTLES, 28/- PER GROSS.**

The "Eclipse" Globe Stoppered Bottle. 18s. per gross.

*Illustrated Catalogue of Soda-water Machinery and all accessories post free upon application to*

**BARNETT & FOSTER,**

**MINERAL WATER ENGINEERS,**

Manufacturing Chemists, and General Providers for the Aerated Water, Beer, Wine, and Cyder Trades,

"NIAGARA WORKS," 26<sup>T</sup> EAGLE WHARF ROAD, LONDON, N.

See also pages 64, 76, Cover iv.



# Hunyadi János

**CAUTION.**—Circumstances which have come to the knowledge of Andreas Saxlehner, Buda Pest, Sole Proprietor of the Hunyadi János Spring, compel him to WARN the British Public against SPURIOUS IMITATIONS. To secure genuineness, purchasers should see that every bottle has on the LABEL the name of "THE APOLLINARIS COMPANY (LIMITED), London."

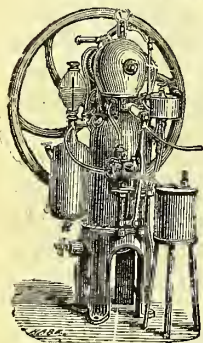
## H. FAVARGER.

GOLD MEDAL]

MONDOLLOT'S PATENT

[PARIS, 1878.

### SODA WATER MACHINERY.



The "MEDIUM"  
The "MEDIUM"  
The "MEDIUM"  
The "MEDIUM"  
The "MEDIUM"  
The "MEDIUM"

is guaranteed to make extra sharp Soda Water, and the finest Lemonade, Ginger Beer, Ginger Ale, &c.

requires no skilled labour, and can be worked by hand or steam power.

saves 50 per cent. of materials over any other hand machine, and requires less power.

will last for years without repairs beyond the renewal of washers.

requires no gasometer, and occupies but a quarter of the room of an ordinary machine.

is automatic in all its work, and merely requires the wheel to be turned.

is of the finest workmanship, and is in use all over the world.

*Apply for illustrated Catalogue to*

**H. FAVARGER, 75<sup>C</sup> TURNMILL STREET, LONDON.**

## VALLET'S PATENT IMPROVED STOPPERED BOTTLES,

For Mineral Waters and Gaseous Liquids,

Are now used by upwards of 1000 Soda Water Manufacturers in the United Kingdom.

PRICES (Per Gross).—Patent Stopper, as per Fig. 1, 4/6; ditto, as Fig. 6, 4/6; ditto, as per Fig. 7, 4/6; Patent Stoppered Bottles, ready for use, ditto Half Bottles, ditto; Patent Unstoppered Bottles, ditto Half Bottles; Fig. 9, Boxwood Bottle Openers, polished, 9/6; ditto, fitted with rubbers, 10/6; Common Wood Bottle Openers, 5/6; ditto, fitted with rubbers, 7/6; Fig. 10, New Bottle Opener, 6/-.

**ROYALTY FREE.**



Fig. 2.



Fig. 6.



Fig. 1.



Fig. 7.

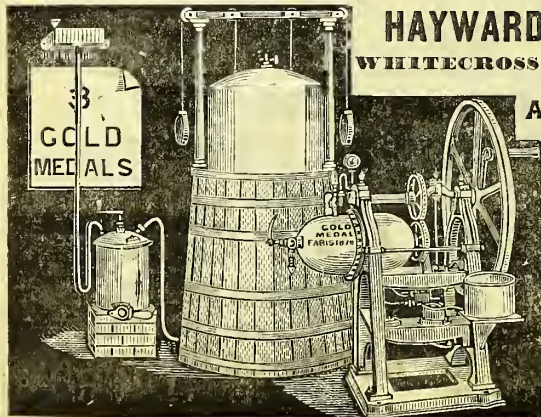
It will be seen by reference to figs. 6 and 7 that I now form a button or nut under the base of my Stopper for the purpose of easily extracting same from the Bottle without spoiling or removing the india-rubber from the body of the Stopper. This is readily accomplished by the use of a suitable tool made to fit on the nut; the Stopper being grasped is withdrawn from the bottle in a second, without injury to the Stopper.

Therefore, it will be a great saving to Mineral Water Manufacturers, as by the old way of extracting the Stoppers from the Bottle, when necessary, very often the india-rubber is spoiled, and the time it takes by this slow process is worth more than the Bottle itself; so that in many instances Bottles with spoiled or dirty Stoppers are put aside as worthless stock.

Figs. 1 and 6 Stoppers, when invoiced without Bottles, are ready fitted with the rubber washer on, and are easily inserted into the Bottle by the simple pressure of the thumb, the washer at the same time folding in the hollow part of the stem, when passing into the Bottle. They are the only Stoppers which require no tool to fit into the Bottle; and when a Bottle breaks, which seldom occurs, the Stoppers are always fitted with washer and ready to be inserted in a new Bottle. Therefore they are the most durable and inexpensive Stoppers in the Trade.

*Sample and Particulars sent on application to*

**L. VALLET, 49 EVERTON RD., LIVERPOOL.**



**HAYWARD TYLER & CO.,**

WHITECROSS STREET, LONDON

WERE AWARDED FOR

**AERATED WATER MACHINERY,**

**3 GOLD MEDALS,**

PARIS,

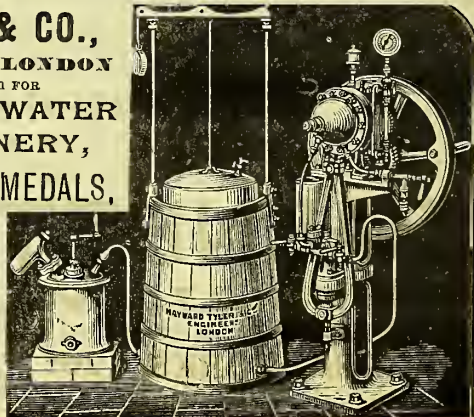
1878.

LONDON,

1884.

CALCUTTA,

1884.





# MINERAL WATER SPECIALITIES.

*For securing Excellence and Economy in the Manufacture of Mineral Waters.*

**RYLANDS' Patent "Reliance" Globe Stoppered Bottles.**

Superior to Codd's. Can be inclined two ways in pouring out.

**RYLANDS' Patent Crystal Valve Self-Opener Bottles.**

The best bottles in the world. *Requires no Opener.* Simple, safe, and clean. (See Engraving.)

**RYLANDS' New Bulb Globe Stoppered Bottles.**

A cheap but inferior bottle to the "Reliance."

**CODD'S Patent Globe Stoppered Soda-Water Bottle,** at reduced prices.

MANUFACTURED BY

## DAN RYLANDS (Late CODD & RYLANDS),

**HOPE GLASS WORKS, BARNSELEY, ENGLAND.**

Proprietor of the Patent Rights Codd's Patent Bottle Company, London District, and **SOLE MAKER FOR EXPORT of CODD'S PATENT BOTTLES.**

Proprietor of the Patent Rights and Sole Maker of McEWEN'S PATENT

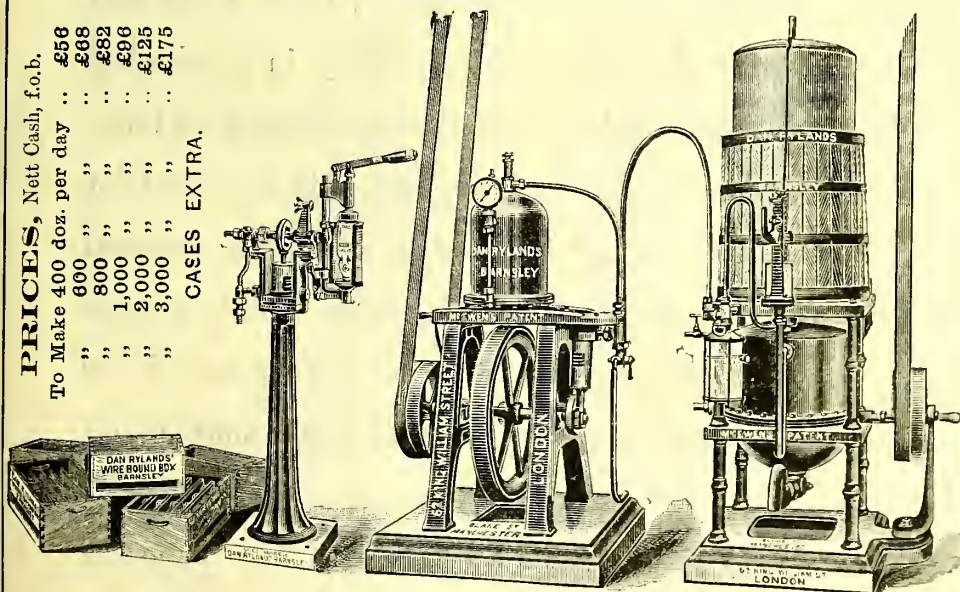
**GOLD MEDAL ECONOMICAL SODA-WATER MACHINERY**

Which saves 30 PER CENT. in Materials, and 50 PER CENT. in Driving Power.

**PRICES, Nett Cash, f.o.b.**

To Make 400 doz. per day ..	£56
" 600 " " " ..	£68
" 800 " " " ..	£82
" 1,000 " " " ..	£96
" 2,000 " " " ..	£125
" 3,000 " " " ..	£175

**CASES EXTRA.**



SOLE MAKER of McEWEN'S PATENT

**"RAPID PARAGON" TURNOVER FILLING MACHINE.**

1,800 already Sold. Price, with Syrup Pump. £9 9s., f.o.b. Cases extra.

SOLE MAKER of RYLANDS' PATENT WIRE-BOUND BOXES, the lightest and most serviceable in the Trade. Specially suitable for Hot Climates.

EVERY MINERAL WATER TRADE REQUISITE SUPPLIED.

*Illustrated Catalogues and Price Lists of Chemists' Plants, Bottles, and Boxes post free on application.*

**LONDON OFFICES: 62 KING WILLIAM STREET, E.C.** Telephone No. 1430.

**SOLE AGENT: WILLIAM BARNARD.**

Barnsley Telegraphic Address—"Rylands Barnsley." London Telegraphic Address—"Rillands London."



MINERAL WATER MANUFACTORY,  
PAYNES WHARF, AND  
ALBION STREET, SPALDING.  
BOURNE WATER.

SLEAFORD,

September 5, 1885.

TO

**MR. N. G. WILCOCKS,**  
**BATH.**

DEAR SIR,

We bear testimony to the excellence of the Machinery supplied to us during the last five years, having had three whole sets of plant. We are convinced we have acted wisely in purchasing from you; the last set, in which is a 24-gallon cylinder, with large double pump, extra size generator, and gasholder, is a perfect lot of machinery; and the one we are using at Sleaford has required no alteration or repairs for four years. The large double pumps require no attention, a pair of pump leathers having lasted for two years. Your "Matchless" and turn-over fillers are simple and perfect, and we have no hesitation in recommending your productions to all intending purchasers. We shall at any time be pleased to show customers our plant in full working order, now at Lincoln, Sleaford, or Spalding.

We remain, dear Sir, yours respectfully,

LEE & GREEN.

A Sample of an immense number received by N. G. Wilcocks.



# SODA-WATER MACHINERY

## SPECIAL NOTICE.

BRATBY & HINCHLIFFE have pleasure in introducing to the TRADE their

# NEW "CHEMISTS'"

# SODA-WATER PLANT.

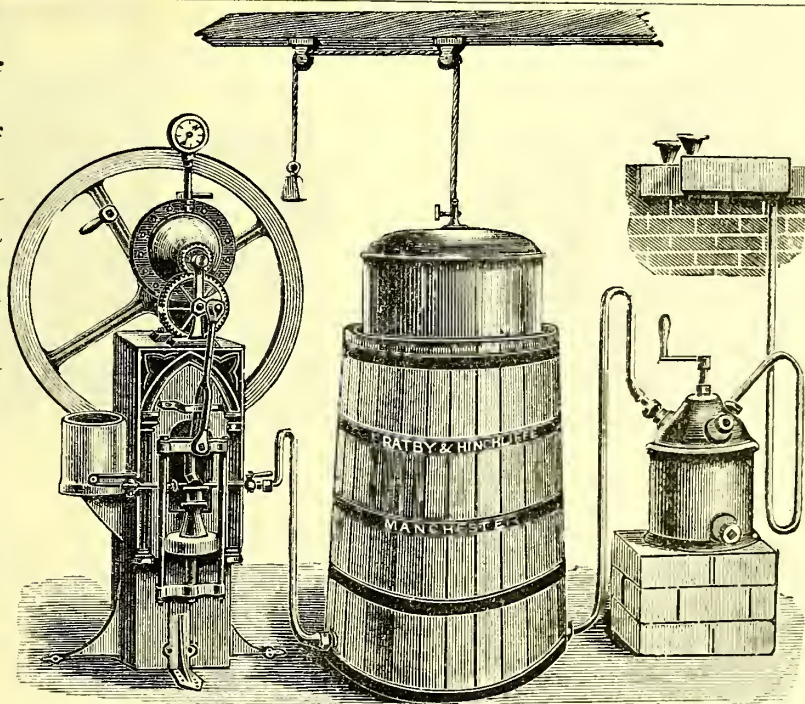
Makes all the popular  
Aërated Beverages.

Can be started at a  
minute's notice.

Suitable for Export.

Cheapest and Best  
Soda-water Plant  
in the Market.

Specially made for  
"Chemists."



Guaranteed to pro-  
duce pure high-class  
Aërated Waters.

Full Instructions to  
Manufacture all kinds  
of Aërated Waters are  
given with each Plant.

Capable of manufac-  
turing 100 doz. full-  
size bottles of Aërated  
Waters per day.

**PRICE: "Chemists'" Soda-water Plant complete, £28.**

Specially designed for Chemists, Hotel-keepers, and Regimental Messes. BOTTLING MACHINES, £8 extra.

### EVERY REQUISITE

FOR AN AERATED WATER MANUFACTORY SUPPLIED.

WRITE FOR ILLUSTRATED CATALOGUE, FORWARDED FREE.

# BRATBY & HINCHLIFFE,

SANDFORD STREET, ANCOATS, MANCHESTER, and  
146 MINORIES, LONDON, E.C.



# GUÉRET FRÈRES,

Mechanical Engineers, privileged in France and Abroad,  
**72, BOULEVARD DE LA GARE, PARIS.**

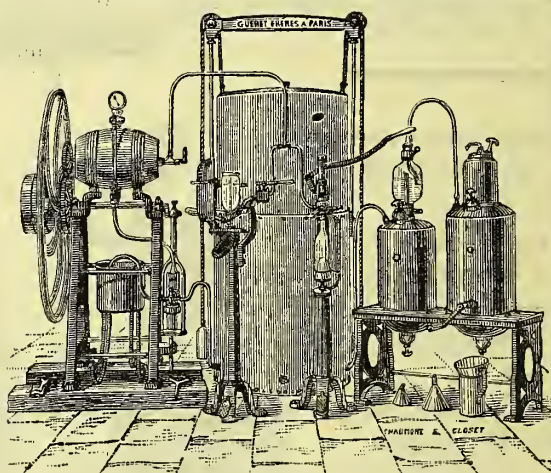
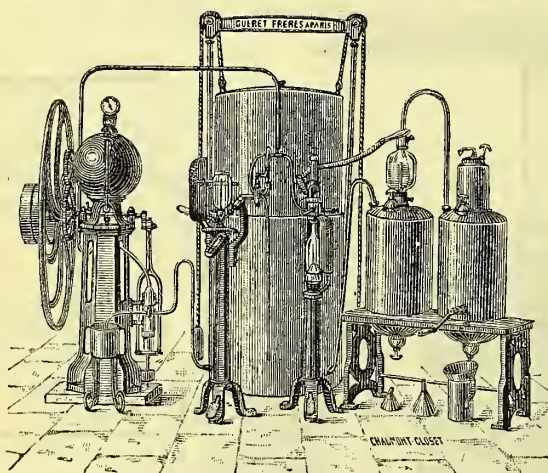
**GOLD MEDAL, AMSTERDAM, 1883.**

## PLANT & SYPHONS FOR THE MANUFACTURE OF AÉRATED BEVERAGES,

WITH ALL THE LATEST IMPROVEMENTS.

### COMPLETE CONTINUOUS APPARATUS, SPHERICAL OR PEAR-SHAPED.

The Saturator is of brass, guaranteed free from every defect in construction and perfect in action, tested at high pressure, combining economy with the greatest sanitary security, and enjoying an unrivalled reputation.



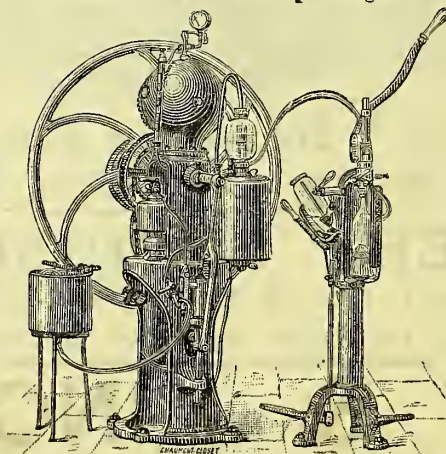
### SYPHONS

With small levers, fittings of metal of highest quality, and best glass.



### CONTINUOUS APPARATUS

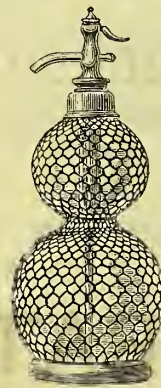
For the automatic generation of carbonic acid gas, the only practical system applicable to the manufacture of Aërated Beverages.



### GAZOSELTZ

For the instantaneous production of Aërated Beverages at table.

Any one can use them.



**FULL PARTICULARS AND GENERAL CATALOGUE SENT ON APPLICATION.**



# IDRIS & COMPANY,

MANUFACTURING CHEMISTS,  
Pure Mineral Water Manufacturers,  
SYPHON AND SELTZOGENE MAKERS.

**BEST GOODS.**

**BEST PRICES.**

Lime Juice Cordial	...	...	...	...	...	7/6	per dozen.	} Reputed Quarts.
Limetta Cordial	...	...	...	...	...	7/6	„	
Palatable Lime Juice	...	...	...	...	...	9/	„	
Fruit Cordials	...	...	...	...	...	9/	„	

(ABOUT THIRTY VARIETIES. LIST FREE.)

**PURE LIME JUICE.**

**PURE LEMON JUICE.**

**NATURAL FRUIT ESSENCES.**

**SOLUBLE ESSENCE OF LEMON.**

**SOLUBLE ESSENCE OF JAMAICA GINGER.**

(THE BEST ARTICLE EVER OFFERED.)

## Sparkling Phosphade

The original preparation containing Hypophosphites as certified by Professor Attfield.

THE MOST AGREEABLE OF ALL THE PHOSPHATIC DRINKS AND THE BEST SELLING ARTICLE.

PATRONISED BY THE PRINCE OF WALES.

**IMPROVED SELTZOGENES.**

20 per cent. off usual list prices.

**ELEGANT & DURABLE SYPHONS.**

## IDRIS & CO.,

ASCHAM STREET, KENTISH TOWN, LONDON, N.W.



## HONOURABLE MENTION:

INTERNATIONAL FOOD EXHIBITION, AGRICULTURAL HALL, LONDON, OCTOBER, 1880.  
GOLD MEDAL, SOCIETY OF ARTS, PARIS, 1884.

## NOTICE.—TO MANUFACTURERS OF

## AERATED WATERS

The following Specialities, as supplied by me to the leading Aerated Water Manufacturers of England, the Continent, and America, are guaranteed to be the finest in the Market.

THEY ARE UNRIVALLED FOR THEIR EXQUISITELY FINE FLAVOUR AND RICHNESS OF AROMA.

## ALL ARE PERFECTLY SOLUBLE, AND WILL KEEP IN ANY CLIMATE.

## HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER.

A Pure Essence of the Finest Ginger, perfectly free from Capsicum. Highly adapted for the manufacture of Transparent Aerated Waters, and for all Dietetic, Medicinal, and Pharmaceutical purposes. Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d. per lb. Extra Fine and Strong, 5s. 6d. per lb.; 12 lbs. and upwards, 5s.

## HAY'S COMPOUND FORTIFIED ESSENCE OF JAMAICA GINGER. FOR FIRST QUALITY GINGER ALE.

Specially prepared for the manufacture of the very Finest Ginger Ale made, is an addition of Vanilla, Lemon, and other flavours to the above. It imparts, with the exquisite Ginger Aroma of the above-mentioned Essence, a peculiarly fine fruity flavour, combined with the fullest amount of fragrance and pungency. Trade Price, 5s. 6d. per lb.; 12 lbs. and upwards, 5s. Extra Fine and Strong, 6s. per lb.; 12 lbs. and upwards, 5s. 6d. Quantity required, five fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

## HAY'S GINGER ALE EXTRACT. FOR SECOND QUALITY GINGER ALE.

This Extract is strongly recommended for the manufacture of Ginger Ale, to which it imparts Pungency, Colouring, great Brilliancy, and an unusually Fine Ginger Flavour and Aroma, and makes a thoroughly good article. Trade Price, 4s. 6d. per lb.; 12 lbs. and upwards, 4s. Quantity required, three fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

## HAY'S GINGER ALE ESSENCE. Highly Concentrated. FOR THIRD QUALITY GINGER ALE.

This Essence, which is a complete Bouquet of Flavours in a highly concentrated state, makes a Ginger Ale possessing an amount of aroma, flavour and quality that will be sure to command a large sale, and that is unsurpassed by the so-called finest Belfast Ginger Ale. Trade Price, 9s. per lb.; 12 lbs. and upwards, 8s. 6d. Quantity required, half a fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles. This Essence will be found most valuable to the general trade.

## HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS.

A magnificent Preparation, perfectly soluble, and makes the finest Lemonade obtainable. Trade Price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s. "Added in the proportion of one fluid oz. to each gallon of Syrup, the Soluble Essence imparts the most delicious flavour of the Lemon."—*The Chemist's Journal*.

## HAY'S GINGER CHAMPAGNE ESSENCE.

For the manufacture of Ginger Champagne. This Essence is a combination of the finest flavours, and imparts with the Ginger a most exquisite aroma, making a most delicious and refreshing approximation to Champagne. Trade Price, 8s. per lb.; 12 lbs. and upwards, 7s. 6d. per lb. Quantity required, ten fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

NOTE.—The above are specially recommended to Club, Hotels, Messes, and Stores requiring the very finest Essences obtainable. There is nothing in the Market to equal them.

## HAY'S TONIC ALE ESSENCE.

Specially prepared as a "pick-me-up" for hot climates. Price, 6s. 6d. per lb.; 12 lbs. and upwards, 6s.

A FEW OF THE MANY REPORTS OF THE LEADING HIGHEST MEDICAL AND OTHER JOURNALS ON MY PREPARATIONS ARE HERE QUOTED:—

**SOLUBLE ESSENCE OF GINGER.**—"It should entirely supersede the official preparation of the British Pharmacopœia."—*Medical Press*. "This Essence is of a very delicate and beautiful appearance, the aroma is fine and powerful, and its strength is very great indeed. The flavour is really exquisite, and it concentrates in quite an extraordinary degree the very best aromatic qualities of ginger."—*Drinks*, London, Sept. 1, 1884.

**GINGER CHAMPAGNE MADE FROM HAY'S ESSENCE.**—"An excellent and most agreeable beverage."—*The Lancet*. "One of the most delicate and wholesome drinks in the market."—*Medical Press*. "The fine Aroma of Ginger which Mr. Hay has caught with remarkable success is an excellent substitute for Alcohol, as it gives what old port wine drinkers used to call 'body,' and to many people besides professed tectotallers, an occasional change at least from the Royal French Beverage to its less costly, but equally sparkling and more refreshing, English rival is a welcome treat."—*The Chemist and Druggist*.

**GINGER ALE MADE FROM HAY'S FORTIFIED ESSENCE.**—"It pours out with as fine a 'head' as any glass of ale, and possesses all the fine aromatic flavour of the pure ginger. It is a beverage which is sure to win favour wherever introduced."—*The Chemist and Druggist*.

The difference between preparations made from the above Essences and those made from the numerous spurious imitations of the above, bearing the name of Soluble Essences, is most marked, and no manufacturer using the latter can compete with one using Hay's Preparations, as is universally known. *The greatest care is used in packing for Export.*



**W. HAY, MANUFACTURING CHEMIST, HULL.**  
BEVERLEY ROAD,

Indentors, to prevent disappointment, should specify that the goods are to be of Hay's Manufacture.

W. HAY CAUTIONS THE TRADE against the use of those spurious so-called SOLUBLE ESSENCES which besides having NO GINGER AROMA, are FLAVOURLESS, RANK, and DISAGREEABLE, and are little more than TINCTURES OF CAPSICUM.



BY ROYAL LETTERS PATENT.

# HASSALL & CO.'S PHOSPHO-CITRIC ACID

TO SUPERSEDE CITRIC AND TARTARIC ACIDS FOR AERATED WATERS.

Is recommended by the most eminent Physicians in Great Britain. The Best Houses in the Trade have already adopted it. It is thoroughly beneficial, and far better suited to the requirements of the Mineral Water Trade; it is free from lead and all other minerals and cheap acids; it is fully £3 per cwt. cheaper than Citric and Tartaric Acids, which mostly contain lead.

WE COMPETE ON QUALITY &amp; PRICE.

## THE PATENTEES CLAIM FOR IT, AMONGST

1. That there is no risk of prosecution, and consequent ruin of business, for lead contamination.
2. That it does not deteriorate by exposure, and will retain all its properties any length of time.
3. The price is only 10d. per lb. in 9 and 18 gallon casks; if in smaller quantities, 1s. per lb.
4. It is now an established fact that the beverages made with this acid far excel all others in keeping properties, as there is not the fungoid growth that there is with other acids.

3-oz. Sample will be sent on receipt of postage (3 stamps), or 14 lbs. will be sent on approbation.

## OTHERS, THE FOLLOWING ADVANTAGES:—

5. The Essences retain their strength to a greater degree.
6. A thoroughly clear and pure beverage is obtained, whilst a greater "body" and more fruity character is imparted.
7. Time and labour saved. Being in liquid form, requires only to be measured and added direct.
8. It is entirely free from Sulphuric, Hydrochloric, Nitric, Acetic, or other cheap Acids.
9. It does not affect the metal pipes to the same extent that Citric and Tartaric Acids do.

## Extract from the "ANALYST," the medium of communication between Public Analysts, for September 1884—

CITRIC and tartaric acids have long been used for acidulating or giving to mineral waters their acid flavouring, but these acids have certain disadvantages, inasmuch as their solutions cannot be kept for any great length of time without the formation of a fungoid growth, and also the extreme difficulty of obtaining them free from lead. A solution has recently been offered to the trade called Phospho-Citric Acid, the properties of which will no doubt interest Analysts. Poisonous metals were entirely absent, and so also were free sulphuric, hydrochloric, nitric, and acetic acids. The solution was clear and colourless. The quantity of phosphoric acid in a small bottle (half-pint) will amount to '95 grain, which I found to be the case in a sample of lemonade made with the above. The flavour and appearance were quite as good as that made with the organic acids. There is no reason why this article should not be used in this highly diluted form as the acid flavouring of lemonade and other mineral waters.

## JAMES NAPIER'S REPORT, July 30, 1884.

I examined samples for poisonous metals, especially arsenic, lead, and copper, but could not find the slightest trace. Free sulphuric, hydrochloric, nitric and acetic acids were also absent; indeed, no free acid exists but phosphoric and citric. From analysis and careful examination, I am of opinion that, as an article to supersede tartaric and citric acids in mineral waters, phospho-citric is in many respects superior to those acids. As is well known, it is almost an impossibility to obtain tartaric and citric acids free from lead, so that this article, having no metallic contamination, is purer than those acids. I see no reason why the use of phosphoric acid, in a highly diluted form, will not prove beneficial and be much more superior to tartaric and citric acids. As phosphoric acid is a necessary constituent of the body, whilst tartaric and citric are entirely absent, it is certainly an advantage to use it, as it supplies a very important ingredient to the system and one which is too often obtained in insufficient quantities. The lemonade was entirely free from metallic contamination and fungoid growth, had a bright appearance, was particularly clear, and had a very agreeable flavour. I have no doubt but Phospho-Citric Acid will be much used, as it is well suited for its intended purpose, i.e., to supersede citric and tartaric acids in mineral waters.

JAMES NAPIER, F.C.S., F.I.C., Public Analyst, London.

## DR. HASSALL'S REPORT.

The Analytical Sanitary Institution, 54 Holborn Viaduct, E.C., London.

Having submitted to analysis a sample of Phospho-citric Acid, we find it to be entirely free from lead and other metallic impurities. Free sulphuric, hydrochloric, and acetic acids were also specially tested for, and found to be absent. The solution was clear, colourless, and, when sufficiently diluted, possessed an agreeable flavour. It is evident from the foregoing particulars that this preparation is well suited to supersede tartaric and citric acids, commonly employed in the manufacture of acidulated and aerated waters; while in its cheapness, freedom from metallic contamination, and in the circumstance that it would tend to preserve beverages made with it for a greater length of time (as there would be less tendency to the development of the fungoid growth frequently observed when the ordinary acids have been used), Phospho-citric Acid offers very considerable advantages.

ARTHUR HILL HASSALL, M.D.

Author of "Food: its Adulterations and Methods for their Detection."

The above is also confirmed by EDWIN GODWY CLAYTON, F.C.S., &amp;c., &amp;c.

## Professor JUSTUS VON LIEBIG.

Equally well known in England and Germany, says: Phosphoric Acid is a never-failing ingredient of all the organised structures of the animal body. The substance of muscular fibre, the fibrine of the blood, the pulmonary tissue, the liver and the kidneys contain an amount of phosphoric acid in chemical combination. The bones of the vertebrata contain more than half their weight of phosphates of lime and magnesia. The substance of the brain and the nerves contain phosphoric acid. The blood contains under all circumstances a certain amount of phosphoric acid.

## DR. WILLIAM B. CARPENTER

Says: Phosphorus exists in combination with albuminoid compounds, and in all animal substances composed of these. The proportions of phosphorus in the brain is considerable, being from 8 to 18 parts in 1,000 of the whole mass, or from 1-20th to 1-30th of the whole solid matter. It seems to be unusually deficient in the brains of idiots.

123 Lordale Street West, Melbourne, June 11, 1885.

Gentlemen.—We have tried the Phospho-citric Acid and have much pleasure in pronouncing it a decided success. It is free from any objectionable flavour or taint, and being in liquid form is a great boon, as the time and trouble in weighing and dissolving the other acids is a consideration in the busy time. We consider all aerated-water makers will find it greatly to their advantage to adopt the use of it.—Yours sincerely, R. O'DONNELL & CO.

46 Myddelton Street, London. E.C., August 20, 1885.

Gentlemen.—After fifteen months' continuous use of your acid we have much pleasure in testifying to its excellence. We find it possesses all the properties required by us for our trade, and is at the same time a great saving in time and expense.—Yours respectfully, R. MAYER & SONS.

2, 3, and 4 Rose Lane, London, August 18, 1885.

Gentlemen.—We have now been using your Phospho-citric Acid over fourteen months, and have much pleasure in stating that we like it very much. It is certainly easier to work with than citric and much cheaper. We can find no fault whatever with it.—Yours truly, T. WATTS.

Catherine Street, Strand, May 7, 1885.

Gentlemen.—We have much pleasure in stating we have used your Phospho-citric Acid for several months, and find it a great improvement to the flavour of the lemonade, &c., also about 70s. per cwt. less than citric acid crystals. It is also a great boon in the saving of time, as it is always ready for instant use.—We are, yours respectfully, W. R. LISTER & CLEMOW.

Newcastle-on-Tyne, August 26, 1885.

Gentlemen.—I have now been using your Phospho-citric Acid for a considerable time, and have much pleasure in saying that it is the best and most economical article for the purpose I have met with. In my opinion it is far superior to the ordinary acids, producing a better beverage, and far easier to manipulate.—Yours truly, W. GLENDINNING.

Cathay, Bristol, August 12, 1885.

Gentlemen.—I have used your Phospho-citric Acid daily for the last ten months with a rapidly-increasing business, to the satisfaction of my customers and profit to myself, being only about half the cost of the other acids and ready for instant use; it gives me every satisfaction.—Yours respectfully, C. E. BEAVIS.

3 Sussex Street, Rlyth, November 12, 1884.

Gentlemen.—I am happy to inform you that I have tried your Phospho-citric Acid, and I find it quite as good as you represent it to be. It saves labour, and is little above half the price of citric and tartaric acids. The cask I ordered last week is to hand.—I remain, yours respectfully, THOMAS FORSTER.

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LEMONADE,  
GINGER ALE, AND QUININE TONIC.**

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Manufactured with the utmost care and by improved machinery, these productions are recommended for purity and excellence of quality by many leading members of the Medical Profession, and have for many years had a preference by the public; the flavour of the **Lemonade and Ginger Ale** being procured from the fresh Fruit and Finest Jamaica Ginger, they may be relied upon as furnishing delicious and satisfactory beverages, either for general use or specially for invalids.

The **Soda Water** is absolutely free from any metallic impregnation, and being by improved machinery highly charged with Carbonic Acid Gas, and each bottle containing a definite and unvarying proportion of **Pure Carbonate of Soda**, J. & B. have every confidence in inviting a trial from those who have not already patronised them.

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FOR LONDON, BRISTOL, AND HARROGATE.

## IN SYPHONS.

	Soda	Soda BP	Lemon	Pot	Pot BP	Seltzer	Lithia	G Ale	Carb	Lime Juice
12 doz. ..	Salins	Salisbury	Ludlow	Parsonstown	Radford	Birr	Cambridge	Dublin	Haggerston	Maidstone
9 " ..	Sandown	Sefton	Lynn	Perth	Raunds	Bradford	Cardiff	Dundee	Hampstead	Manchester
6 " ..	Saxby	Scotby	Lucan	Parkend	Reading	Birmingham	Chelmsford	Derry	Highbury	Malvern
4 " ..	Shaw	Selling	Longport	Padiham	Roydon	Brigg	Clare	Dover	Highgate	Melton
3 " ..	Severn	Shadwell	Lancaster	Penzance	Rugby	Boston	Clonmell	Durham	Holloway	Milford
2 " ..	Scruton	Shanklin	Litchfield	Pinner	Ruthin	Balmoral	Coventry	Dunbar	Harpenden	Mold
1 " ..	Slough	Shapwick	Lincoln	Plymouth	Ramsgate	Bury	Crewe	Doncaster	Hanwell	Mouce

## IN CORKED BOTTLES.

	Soda	Soda BP	Lemon	Pot	Pot BP	Seltzer	Carb	Lime Juice	G Ale	G Beer	Lithia
12 doz. ..	Twyford	Tavistock	Temple	Ulster	Upton	Vauxhall	Arundel	Aberdeen	Ayr	Athlone	Enfield
6 " ..	Tunbridge	Tring	Thame	Uxbridge	Udny	Verney	Alcester	Abingdon	Avon	Athy	Ealing
3 " ..	Trevor	Tweed	Truro	Usk	Uddington	Virginia	Avon	Ardmore	Ashby	Antrim	Epping
Sparkling Rubine.								Zoedone.			
30 doz. ..	..	..	..	..	America						
12 " ..	..	..	..	..	France	12 doz. ..	..	..	..	Melbourne	
6 " ..	..	..	..	..	Spain	6 " ..	..	..	..	Sydney	
3 " ..	..	..	..	..	Germany	3 " ..	..	..	..	Adelaide	

### EXAMPLE.

Please send immediately—

- 12 doz. Soda, B.P., Syphons
- 6 " Lemonade
- 12 " Soda, B.P., Cork
- 6 " Soda, Cork
- 3 " G. Ale, Cork

Salisbury—Lucan—Tavistock—  
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Are Perfectly Pure and of First-class Quality.

**SODA WATER, POTASS WATER,  
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GINGER ALE, LEMONADE, &c.**

### IMPORTANT TESTIMONIAL.

H.M.S. "SERAPIS," Portsmouth, 25th May, 1876.

Messrs. C. MUMBY & Co.,  
Gentlemen,—The Soda Water supplied by you for the use of H.R.H.  
The PRINCE OF WALES on board H.M.S. "Serapis" was of excellent  
quality, kept in good condition, and gave great satisfaction to His Royal  
Highness, his suite, and the officers of the ship.

(Signed) THOMAS BRADBRIDGE, Paymaster.  
T. W. SCADDAN, Chief Steward.

These Celebrated Waters can be supplied in  
Syphons with Silver-plated Tops.

GOODS CARRIAGE PAID. PRICES ON APPLICATION.

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[See pages 17, 23, 107, 128, 152, 154, 158.]

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Specially adapted for the Manufacture of the  
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Dose: Half a glass to three glasses per day before or during meals.  
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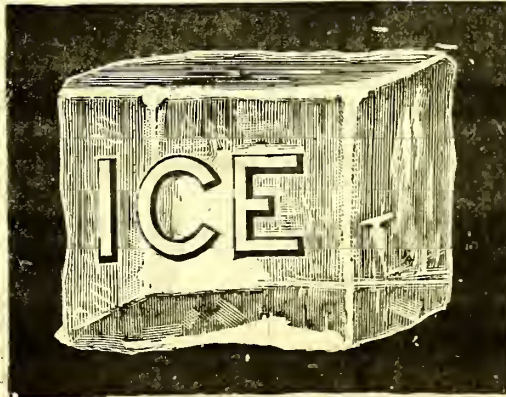
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Packing free. Utmost promptitude in despatch.

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*Newport Pagnel.*

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*Each Bottle is protected by a Label bearing the Signature of the Firm.*

Purity and Excellence of the Water certified by Analysis by Professor ATTFIELD, Ph.D., F.C.S.

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A MONEY SAVING TEA. ABSOLUTELY PURE.

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Duty-paid parcels in 20-lb. caddies or 56-lb.  $\frac{1}{2}$ -chests. Carriage paid on  $\frac{1}{2}$ -chests. Terms, net cash.

**FINE COFFEES (Roasted)—** 9d. | 10d. | 11d. | 1/ | 1/1 | 1/2 | 1/3 | Mocha, 1/4 | Finest Mysore, 1/5 |

In 28-lb., 56-lb., or 112-lb. bags; also supplied raw or ground. Terms cash, less 2½ per cent. discount.

**THE NEW FRENCH COFFEE CAFE FRANÇAIS** To sell at 10d., 1/1, and 1/4; in  $\frac{1}{2}$ -lb.,  $\frac{1}{4}$ -lb., and 1-lb. Canisters.

FULL PARTICULARS, PRICE LISTS, SAMPLES, AND ANY INFORMATION ON RECEIPT OF TRADE CARD.

**EXPORT DEPARTMENT.**—Every variety of Tea or Coffee in bond. Shipped f.o.b. London against banker's credit or remittance. Samples, price current, and every information on application.

**KANGRA VALLEY**

**Indian Tea Growers' Association,**  
11 PANTON ST., HAYMARKET  
(Late of NEW COVENTRY STREET, W.).

The distinctive feature of the Business of this Association of Planters is that the Tea is delivered to consumers in the original 1-lb.,  $\frac{1}{2}$ -lb., tinfoiled parcels in which it is packed on the plantations.

THERE ARE THREE QUALITIES:

**ORANGE PEKOE, PEKOE & PEKOE SOUCHONG,**  
Retailing respectively at 4s., 3s., and 2s. 6d.

They were EXHIBITED and INFUSED in the INDIAN TEA SECTION, HEALTH EXHIBITION, and now at the ALBERT PALACE, BATTERSEA.

**SPECIAL TERMS TO CHEMISTS.**

Agents: Messrs. Barclay & Sons, Farringdon Street; Messrs. John Sanger & Sons, New Oxford Street, W.; Mr. Edwd. Cleaver, 39 Great Portland Street; and Messrs. W. Edwards & Son, 157 Queen Victoria Street, E.C.

**RANDALL'S BLACK CURRANT LOZENGES.**

Plain Black Currant, old square	--	--	2 6
" " " rough oval	--	--	2 6
Black Currant and Ipecacuanha	--	--	2 6
Black Currant and Tannin..	--	--	3 0
Black Currant Voice (warm astringent)	--	--	3 0
Black Currant Cough Lozenges *	--	--	3 6

(\* Ipecac. and Morph., strength as "B. P.")

In Bottles, 1 lb., 2 lbs., 4 lbs., and 7 lbs. For Exportation, in soldered tins, of any size. From EDWARDS, London; through any Wholesale House; and from the Manufacturers,

**RANDALL & SON, Southampton,**

Who will forward Samples by post on application.

Also, BROWN COUGH LOZENGES, 2s.; 7 lbs. stamped with name free, and MUSE LOZENGES (Special), 2s. 6d.

N.B.—Medical Lozenges of every kind,

Including those of the Pharmacopoeia of the Hospital for Diseases of the Throat, London.

**UNEQUALLED CEYLON TEA**

IN LEADEN PACKETS.

You have yet to add to your trade considerably. This Tea is grown in the fertile Island of Ceylon. As these Packets are perfectly air-tight, the Tea can be kept in them for a considerable length of time, and yet lose none of its fragrance and aroma. Being mild and invigorating, it is especially suitable for invalids and convalescents.

Guaranteed to be absolutely pure, and full weight without the package.

Choice Ceylon Pekoe Souchong	2s. 6d.
Choicest Ceylon Pekoe	3s. 0d.
Superb Small Leaf Orange Pekoe	3s. 6d.
Done up in 1-lb. and $\frac{1}{2}$ -lb. Lead Packets. To be had in Half Chests (60 or 40 lbs.) and Boxes (20 lbs.).	

**BLENDED TEAS.**

These Teas are selected from the choicest growths of the earliest pickings from the best estates in India, Ceylon, and China. 1/6, 1/8, 1/10, 2/1, 2/6, and 3/1.

TERMS AND TASTING SAMPLES FREE ON APPLICATION.

**EDWARD M. EDWARDS & SON,**

WHOLESALE TEA DEALERS,

35 Jewry Street, Fenchurch Street;

Warehouse: Little George Street, Minories,

Agents Wanted.] LONDON, E.C. [Agents Wanted.]

THE

**INDIAN TEA GROWERS CO.,**

VIRGINIA BUILDINGS, GLASGOW,

Have for several years supplied FOUR STANDARD QUALITIES of their PURE TEAS—

PACKED IN  $\frac{1}{4}$ ,  $\frac{1}{2}$ , and 1 lb. TINS,

Which are very suitable for, and greatly popular with, Chemists and Druggists, and Fancy Warehousemen. The Home Retail Prices, marked in plain figures on each Tin, are 2/4, 2/10, 3/2, and 3/6 per lb., or in 5 and 10 lb. Tins, 1d. per lb. less.



Terms to Agents may be had on application to A. M. STEWART, Office of The Indian Tea Growers Co., Virginian Buildings, Glasgow.



TELEGRAPHIC ADDRESS—  
"Calisayin, London."TELEPHONE  
NUMBER,  
7524.

A FEW OF

LORIMER & CO., Manufacturing  
Chemists  
and Wholesale Druggists,  
Hargrave Park Road,  
LONDON,  
N.

# LORIMER'S SPECIALTIES.

PURE  
COD LIVER  
OIL, QUALITY.8-oz., 4; 16-oz., 14; 32-oz. bottles, 24 6 doz.  
Gall., 7; 1-gall. bot., 93 doz.; orig. cask,  
6/6 gall. 4-pint, 7/6; 1-pint, 12/6 doz.AWARDED  
**SIX GOLD**  
AND  
**PRIZE MEDALS**In One Year (1884),  
**LONDON & CALCUTTA.****MENTHOL**  
(NATURAL  
CRYSTALS.) **CONE,**In Turned Wood Screw-Top Cases, or in  
Bottles, to retail at 1/6 and 1 each,  
3/6 and 7/ dozen.IN accordance with  
the request of many  
Chemists  
LORIMER'S  
LEADING  
SPECIALTIES  
will in future be sup-  
plied without any  
indication of *Retail*  
*Prices* on Labels,  
packages, or advertis-  
ing matter, so that  
the Retailer can fix  
his own price and  
secure the highest  
profits attainable. In  
small towns agents  
are appointed who  
have the whole trade  
of their district with-  
out opposition.Full List on appli-  
cation.**QUININE**  
AND **IRON**  
**TONIC,**8 and 16 oz. Bottles, containing 16  
and 32 full doses, 3/6 and 15/ doz.Parrish's  
Gold Medal  
**CHEMICAL FOOD**1 1/2 1 lb. bots.  
4 3/4 6.3 10.9 doz.  
Bulk, lb., 5/4.  
cwt., 50/.**LORIMER'S**  
**QUININE**  
**WINE**Has been examined and approved at  
Somerset House by the Inland  
Revenue Authorities.  
Wine bottles, 18/ doz. Imperial  
Pints, 16/; Imperial Half-pints, 8/4.**COMPOUND**  
**SYRUP OF**  
THE  
**Hypophosphites**Slightly Alkaline,  
S. Gr. 1.35.1 1/2 1 lb., 9 6, 16 1/2,  
50/ doz. In bulk, 2/ lb.

Each teaspoonful

(fluid drachm) contains:

Hypophosphites	grs.
Lime	...
Sodium	...
Potassium	...
Iron	...
Manganese	...
Quinine	...
Strychnia	...

Samples free on appli-  
cation.**LORIMER'S**  
Cacaca Sagrada  
Perfect Castor Oil  
Transparent

Cement

Chlorate Potash

Pearls

Extract Malt

Extract Malt and

Cod Liver Oil

Cigarettes

(Cubebs, &amp;c)

Ferrum

Dialysatum

Furniture Cream

Seidlitz Powders

Smelling Salts

Perfumery

&amp;c. &amp;c.

**ESSENCES**(PURE FLAVOURING.)  
Distilled from  
Spices, Herbs,  
Fruits, &c.

For Culinary Purposes.

1-oz. bott., 2/9 doz., to

retail at 6d. each.

1-oz. bots. 4 8 doz., to

retail at 1/ each.

2-oz. bots. 8/ doz., to

retail at 2/ each.

4-oz. bots. 14/ doz., to

retail at 3/ each.

In 1/4 or 1 doz. Fancy

Boxes, assorted or

otherwise.

1, 2, and 4 oz. may be

had with Sprinkling

Stoppers at 7d. doz.

extra.

**Concentrated**  
**QUININE**  
AND  
**IRON.**Bottles of 40 and 50 doses, 2/9 and  
4/6 each.

24/ and 42/ doz. bottles.

As  
supplied to H.M.  
Government.  
British Pharm.,  
1885.**CITRATE OF**  
**IRON & QUININE**1-oz. bots., 1 3  
each.  
Bulk, 1 2 oz.**LIQUOR FOR**  
**QUININE** AND  
**IRON TONIC**  
Lb., 4/9.One part added to ten parts distilled  
water produces a permanently brilliant  
Tonic, containing a full 5-grain dose  
of the P.B. citrate in each half-ounce.

MANUFACTURERS OF

**CITRATE of IRON and QUININE and all Scaled Preparations.**  
**CITRATE of MAGNESIA and all Granular Preparations.****SOLUBLE, FRUIT, & ARTIFICIAL ESSENCES.***Concentrated Infusions and Pharmaceutical Preparations.***DISTILLERS AND IMPORTERS OF ESSENTIAL OILS AND PERFUMERY.****SHIPPERS OF ALL SPIRITUOUS PREPARATIONS IN BOND.****SPECIAL AGENTS FOR CAVALLIER FRERES, PERFUMERY DISTILLERS, GRASSE.**

Purest Drugs and Preparations, in all sizes, put up in best style and at prices including Bottles, Boxes, &amp;c., lower than bulk prices of Wholesale Druggists.



**LIVER REMEDY.**

PREPARED

**DANDELION**

(LEA &amp; PERRINS').

MADE WITH PURE

**DANDELION ROOT & THE FINEST  
COFFEE.**

Sold in Tins, at 8d., 1s. 6d., &amp; 3s. each.

**CARBOLINE (TOOTH PASTE)**

1s. 6d. per Pot.

Best known Cleanser, Preserver, and  
Beautifier of the Teeth.*Supplied by the Patent Medicine Houses on the  
usual terms, or the Makers,***GEORGE & WELCH, WORCESTER.****GEO. MASON & CO.'S  
SPECIALITIES FOR INVALIDS,**

ESSENCE OF BEEF,

CONCENTRATED BEEF TEA,

MEAT LOZENGES, &amp;c.

*As Supplied to the leading London Hospitals.*A Trial of our Preparations will at once prove  
their superiority over all others, added to which  
they are the cheapest.

PRICE LIST POST FREE.

417 KING'S ROAD, CHELSEA, LONDON, S.W

**MUSTARD.****FINCH, RICKMAN & CO.'S  
Genuine Qualities**Are made from the finest mustard seeds only.  
Their compounds, as manufactured for upwards  
of a century, are guaranteed free from all ingre-  
dients imparting spurious heat, and are there-  
fore equally suitable for both table and medical  
purposes.**6 BROKEN WHARF, UPPER THAMES STREET  
LONDON.**

EIGHT PRIZE MEDALS AWARDED.

**GOODALL'S  
HOUSEHOLD SPECIALITIES.****Yorkshire Relish**

THE MOST DELICIOUS SAUCE IN THE WORLD.

This cheap and excellent Sauce makes the plainest viands palatable, and  
the daintiest dishes more delicious. To Chops and Steaks, Fish, &c., it is  
incomparable. Sold by Grocers, Oilmen, Chemists, &c., in Bottles, 6d., 1s.,  
and 2s. each.CAUTION.—On each Yorkshire Relish Label is a Willow Pattern Plate  
and name, GOODALL, BACKHOUSE & Co. No other is genuine.**Goodall's  
Baking Powder**

THE BEST IN THE WORLD.

Makes delicious Puddings without Eggs, Pastry without Butter, and  
beautiful light Bread without Yeast. In 1d. Packets; 6d., 1s., 2s., and  
5s. Tins.**Goodall's  
Quinine Wine**The best, cheapest, and most agreeable tonic yet introduced. The best  
remedy known for Indigestion, Loss of Appetite, General Debility, &c.  
Restores delicate individuals to health and vigour. In Bottles, 1s. and  
2s. each.**Goodall's  
Custard Powder**For making delicious Onstards without Eggs, in less time and at half the  
price. Unequalled for the purposes intended; will give the utmost satis-  
faction if the instructions given are implicitly followed. Sold in Boxes  
6d. and 1s. each.**Goodall's  
Blanc Mange Powder**Is acknowledged by all to be the most convenient and economical pre-  
paration ever introduced, as, by its use, a most Rich and Delicious Blanc-  
mange may be produced in a few minutes at a trifling cost, and may be had  
of various flavours, i.e., Raspberry, Strawberry, Lemon, Almond, and  
Vanilla. Sold in Packets, 6d. and 1s. each.**Goodall's  
Egg Powder**Acknowledged to be the only real substitute for eggs yet discovered. Its  
action on Cakes, Puddings, &c., &c., resembles that of the egg in every  
particular, enriching them in colour and flavour, rendering them most  
wholesome and nutritious. One penny packet will go as far as four eggs; and  
one sixpenny tin as far as twenty-eight. In 1d. Packets; 6d. and 1s. Tins.

SOLE MANUFACTURERS—

**GOODALL, BACKHOUSE & CO.,  
WHITE HORSE STREET, LEEDS.***A Monthly Price List of Druggists' Sundries, Patent Medicines, &c.,  
can be had post free on application.*



**CASH PRICE**  
**20s. for 12½ GALLONS.**  
**CASKS FREE.**

School of Cookery, Crystal Palace, S.E.  
January, 1883.

MR. PETER TYRER,  
SIR,—I have been using the "Borough"  
Ketchup, and am very pleased with it. Its  
flavour is excellent, both for all kinds of  
Savoury dishes and Soups; and I most cer-  
tainly should advise every cook and house-  
keeper to use it, FOR I HAVE NEVER YET MET  
ITS EQUAL.

MARIAN SMITHARD,

*Lectress on Cookery.*

**MANUFACTORY—**  
**70 LONG LANE, BOROUGH**  
**LONDON, S.E.**

Scotch Agency—115 West Nile Street, Glasgow.

**DO NOT THROW MONEY AWAY**  
**BUT WRITE**  
**FOR A**  
**FREE SAMPLE OF**  
**Tyrer's**  
**"BOROUGH"**  
**Ketchup**  
**SENT FREE**  
**TO ANY ADDRESS**  
**SILVER MEDAL**  
**LONDON.**

## HARVEY'S SAUCE

**For FISH,**  
**STEAKS,**  
**GAME.**  
**&c.**

**CAUTION.**

Each Bottle  
of this celebrated  
Sauce, prepared from  
the *Original Recipe*, bears  
the well-known Label, signed—

*Elizabeth Lazenby*

This Label is protected by PERPETUAL INJUNCTION in Chancery of the 9th July, 1856, and without it  
none can be GENUINE.

**Prepared only by E. LAZENBY & SON, LONDON.**

*And sold Retail by Grocers, Oilmen, Italian Warehousemen, &c., throughout the Kingdom.*

**SEVEN INJUNCTIONS** have been granted during the past few months.

**CAUTION! "YORKSHIRE RELISH."**

**NOTICE IS HEREBY GIVEN** that in several actions instituted by Messrs. GOODALL, BACKHOUSE & CO.,  
of LEEDS, Injunctions have been recently granted by Judges of the Chancery Division of the High Court of  
Judicature, restraining several persons from using several Counterfeits of Messrs. GOODALL, BACKHOUSE & Co.'s  
Labels, and in particular against the use of the words "YORKSHIRE RELISH." The sole and exclusive right to  
the use of which words having been finally established by the above Firm, they will take immediate proceedings  
against parties manufacturing or offering for sale Sauce under the above title, not being of the manufacture of  
Messrs. GOODALL, BACKHOUSE & Co.

Information may be given to the undersigned,

J. SEYMOUR SALAMAN,

12 KING STREET, CHEAPSIDE, LONDON,

*Solicitor to the Trade Mark Protection Society*

### SPECIAL NOTICE & CAUTION.

**BRAND & CO.**

The Original Manufacturers of Essence of  
Beef (green label under wrapper), and  
other Specialties for Invalids, have

**NOT REMOVED**

From their **SOLE ADDRESS**, No. 11

LITTLE STANHOPE STREET, MAY-  
FAIR, W., and caution the trade to

**BEWARE of IMITATIONS.**

**BRAND & CO'S**  
**SPECIALTIES FOR INVALIDS**  
**ESTD 1835**  
**ESSENCES OF BEEF,**  
**MUTTON, YEAL & CHICKEN,**  
**BEEF TEA, TURTLE SOUP & JELLY,**  
**MEAT LOZENGES &c.**  
**SOLE ADDRESS**  
**No. 11,**  
**LITTLE STANHOPE**  
**ST. MAYFAIR, W.**



CONCENTRATED PATENT  
**PEPTONISED MILK**  
 AND  
**PEPTONISED MILK AND COCOA.**

These two preparations are made with pure rich PRE-DIGESTED Country Milk, and, by mere dilution with hot water, afford a delicious restorative beverage the assimilation of which requires no digestive effort.

**SAVORY & MOORE, LONDON.**

Tins, 1s. 6d. and 2s. 6d. Obtainable Everywhere.

**FOR INVALIDS & PERSONS OF WEAK DIGESTION.**



**ESSENCE OF BEEF.**  
 AND OTHER SPECIALITIES.

IN TINS & GLASS BOTTLES.  
 Price List on application to the

**LONDON MANUFACTURING CO.,**  
 ASK FOR **LION SAUCE.** 59 to 61, HATTON GARDEN LONDON. E. C.

TWENTY-TWO PRIZE MEDALS AWARDED TO THE FIRM

**FRY'S**  
 Pure Concentrated  
**COCOA**

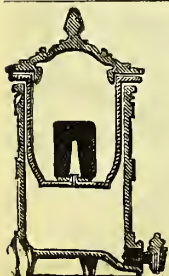


TRADE MARK.

Prepared by a new and special scientific process securing extreme solubility, and developing the finest flavour of the Cocoa.

**J. S. FRY & SONS, BRISTOL, LONDON, & SYDNEY, N.S.W.**

**DOULTON & CO., LAMBETH, LONDON, S.E.**



**DOULTON'S**  
**MANGANOUS CARBON FILTERS**  
 (DR. BERNAYS'S PATENT).

**ADVANTAGES:**

MANGANOUS CARBON possesses very high FILTERING POWER.

Can be readily taken to pieces for cleansing.

NO water can remain in reservoir to become stagnant.

An entire absence of corrodible material.



**DOULTON'S IMPROVED**  
**GRANULAR CHARCOAL FILTER.**

**ADVANTAGES:**

The Lower Bed is kept perfectly clean, thus adding to the durability of the Filter.

A DOUBLE ACTION secured to the power of the Filtering Medium.

Any description of Filter Refilled at moderate charge.

Prize Medal, International Health Exhibition, 1884.

DOULTON & CO. also manufacture Boudoir or Table Filters, Pocket and Syphon Filters for Tourists' use, Manganous Carbon Self-acting Cistern Filters, Refrigerator Filters, Main Service Filters for Manufacturing purposes, Hotels, &c. May be had of all Dealers.—DOULTON & CO., Lambeth, London, S.E.  
 DEPOTS—100 SOHO STREET, LIVERPOOL; GRANVILLE STREET, BIRMINGHAM; AND 6 RUE DE PARADIS, PARIS.



# KREOCHYLE

KREOCHYLE IS A PURE LIQUID MEAT, CONTAINING, IN ADDITION TO THE ORDINARY "MEAT EXTRACTIVES," THE WHOLE OF THE SOLUBLE ALBUMEN OF THE MEAT IN A FORM SUCH THAT IT IS ABSOLUTELY SELF-DIGESTIVE.

FOOD AND  
STIMULANT

**BARFF & WIRE** FOR INVALIDS  
AND INFANTS.

PRICES—Retail, 5/ per pint; 2/9 per  $\frac{1}{2}$  pint;  
1/6 per  $\frac{1}{4}$  pint.

HAND-BILLS, SHOW-CARDS, AND SAMPLES SENT WITH  
EVERY ORDER IF DESIRED.

## LIQUID MEAT.

BY ROYAL LETTERS PATENT.

# BARFF BORO-GLYCERIDE

## FOOD PRESERVER.

FOR MEDICAL & SURGICAL PURPOSES.

FOR PARTICULARS CONCERNING KREOCHYLE AND BARFF BORO-GLYCERIDE APPLY TO THE

**KREOCHYLE COMPANY, 9 FARRINGDON ROAD, LONDON, E.C.**  
TO BE OBTAINED OF ALL WHOLESALE HOUSES.



## DR. KOCHS' MEAT PEPTONES.

A New really Nutritious and Agreeable Food for Invalids, as well as for all persons in good health.

A solution of the long-sought scientific problem. The nutritious constituents of fresh meat peptonised and retaining the albumen, forming a product of the highest alimentary order, not liable to decompose, agreeable to the taste, invigorating, and instantly assimilable, without requiring the process of digestion. Used with the best results in the Hospitals of London, Paris, Berlin, Vienna, &c. Specially recommended for convalescents, and for sufferers from dyspepsia, poverty of blood, sudden faintness, &c. For further details, see THE LANCET of September 6th, 1884.

Sole Consignees—**WIDENMANN, BROICHER & CO., 33 Lime St., London, E.C.**

Obtainable of **ALLEN & HANBURY'S**, Plough Court, Lombard Street, and through all the leading Wholesale and Retail Houses.

## GIBSON'S

**DELECTABLE JUJUBES, VOICE JUJUBES, AND GLYCERINE PASTILLES,**

Put up in 4-lb. Decorated Tins with Glass Lids, **TINS FREE**, are now being inquired for by buyers from all parts of the world. They are not surpassed in quality by any maker, and give entire satisfaction.

**MEDICATED and HIGH-CLASS LOZENGES, of every kind.**

Sent out in 2-lb. or 4lb. Bottles, Bottles Free; or in Tins, from 10 lb. upwards.

**LIME JUICE TABLETS.**

**PURE MALT TABLETS.**

**ACID DROPS, AND BEST QUALITY BOILED SUGARS OF EVERY KIND.**

**GIBSON'S ORIGINAL CHLORODYNE LOZENGES.**

**PENNY SUGAR WORM CAKES**, suitable for either children or adults. Have an immense sale keep in any climate, and please everybody. Manufactured by

**ROBERT GIBSON, Carlton Works, Hulme, Manchester, and 1 Australian Avenue, London**

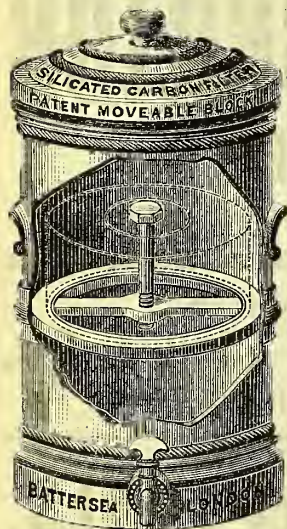
Price 1 list sent on application. Our Goods can be bought through any Wholesale or Export House in London. Indents should be marked "Gibson's"



# SILICATED CARBON

## PATENT MOVEABLE-BLOCK FILTERS.

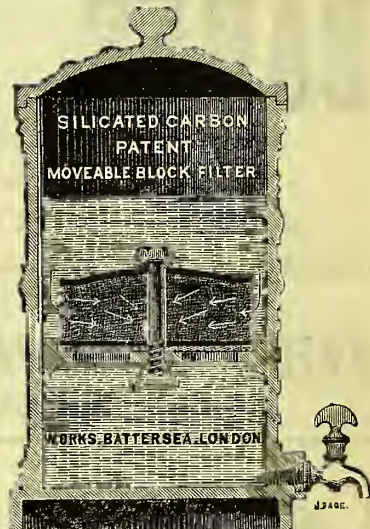
These Filters are constructed on Scientific principles, and can be renewed or repaired by the user without returning to the maker. They possess all the advantages of those with fixed filtering mediums, while the simple removal of the Silicated Carbon Block leaves the *whole* of the interior of the Filter open for inspection and cleansing. The working parts are stoneware, and corrosion is impossible.



(Elevation with Block removed.)

NO LOOSE PAN OR INNER VESSEL  
TO CAUSE BREAKAGE.

The block being non-porous on the top and edges, an *upward* direction is given to the water, which thus passes through a greater thickness of the Silicated Carbon, as shown by the arrows in drawing.



(Section.)

The Silicated Carbon Block can be instantly removed, leaving the whole of the interior of the Filter *open* for inspection and cleansing.

To Cleanse the block, plunge it into boiling water, and well scrub it with a hard brush.

Extra blocks can be supplied with each Filter. All parts being interchangeable can be replaced in case of accidents.

This Patent can be adapted to all patterns manufactured by the SILICATED CARBON FILTER CO. *without increased charge.* In ordering please state "*with patent moveable block.*"

Domestic Filters (as above), in Cream-coloured Stoneware, with Plated Taps and Patent Moveable Blocks:—

No. 27. O. $\frac{1}{2}$ gal. 10/6 each.	D. 6 gals. 42/- each.
A. 1 „ 14/6 „	E. 8 „ 52/- „
B. 2 „ 21/- „	F. 12 „ 70/- „
C. 4 „ 32/- „	

Dining Room Filters, in Marbled China, with Plated Taps and Patent Moveable Blocks:—

No. 23. A. 2 gals. 35/- each.
B. 5 „ 80/- „

Refrigerative Terra Cotta do., do.:—

No. 25. 2 gals. 31/6 each.
----------------------------

All makes of Filters can be refitted on this principle, 1 gal. 8/6, 2 gals. 10/-, 4 gals. 12/- each. Larger sizes in proportion.

# SILICATED CARBON FILTER COMPANY.

## WORKS: BATTERSEA, LONDON.



# SILICATED CARBON FILTERS.

## SYPHON FILTERS FOR TRAVELLERS.

By means of these Filters pure and perfectly wholesome water may be drunk from any pond or stream by simply immersing the Filter therein and drawing the water through the tube by suction.



No. 20.

used as a Syphon by placing it in a vessel of water, then drawing the water by the mouth, and allowing the flexible tube to hang over the side below the Filter. When once set in operation their action is continuous.

- Each of these portable Filters may be
- A.—Pocket Filter,  $2\frac{1}{2}$  inches diameter, in porcelain, with glass mouthpiece, in decorated metal-box .. .. . 2 6
  - B.—Ditto,  $3\frac{1}{2}$  inches diameter, in best stoneware .. .. . 5 0
  - C.—Emigrant's, 5 inches diameter, with silver-plated tap .. .. . 12 0
  - G.—Pocket Filter, for carrying over shoulder, as supplied to the Forces in Abyssinia and Zululand, and to the Ashantee and Egyptian Expeditions .. .. . 3 6
  - H.—Ditto, nickel-plated, designed by Major Fraser, R.E., and specially recommended by the Horse Guards for Officers' kits .. .. . 5 0

## FILTERS.

### TABLE FILTER,

Made of stout glass, in 1, 2, and 3 pint sizes, the filtering medium being securely fitted into the bell-funnel, so that it is not liable to become loose, or to allow unfiltered water



No. 24.

to pass. This Filter is peculiarly suited for the Bedroom and for Table use, affording a ready and simple means of obtaining at any time freshly-purified water.

#### PRICES.

No. O, 2s. 6d.; A, 4s.; B, 5s. 6d.

Engraved Vine Pattern—O, 3s. 6d.; A, 5s. 6d.; B, 7s. 6d.



### DINING-ROOM FILTER,

No. 22.

WITH PATENT MOVEABLE BLOCK.

MADE IN MARBLED CHINA.

#### PRICES.

- A. .. Two Gallons .. .. . 35s.
- B. .. Five Gallons .. .. . 80s.

The large size (B) is specially adapted for Hotels, Refreshment Rooms, Luncheon Bars, &c.

### REFRIGERATOR FILTER, NO. 25,

WITH PATENT MOVEABLE BLOCK.

Made in Porous Terra-Cotta Ware,

Which acts with remarkable power as a cooler, and renders this Filter invaluable, especially in Tropical Climates,

AFFORDING A  
COOL DRAUGHT OF PURE WATER.

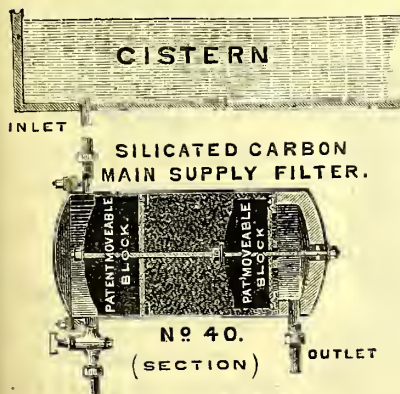
Price, with Silver-plated Tap .. .. . 81s. 6d.  
Capacity Two Gallons.

Specially adapted for Tropical Climates.



### MAIN SUPPLY FILTER, NO. 40,

WITH PATENT MOVEABLE BLOCKS,



No. 40.

(SECTION)

CLEANSING TAP.

### FOR MINERAL WATER MANUFACTORIES,

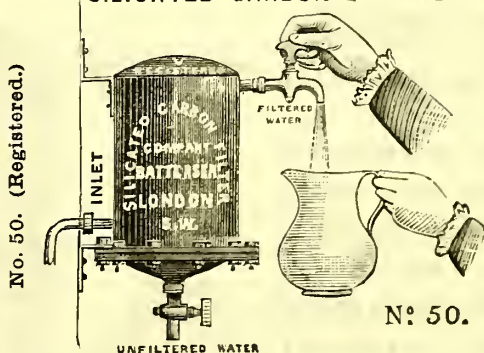
As used by Messrs. Schweppe, London, Liverpool, Glasgow, &c.; and most of the large makers.  
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SILICATED CARBON [TRADE MARK]



No. 50. (Registered.)

No. 50.

These Filters require no attention from servants, as they are always filled and ready for use. The act of drawing Unfiltered Water cleanses the Filter, by washing away the impurities collected on the carbon.

Complete, Price £3 8s. each.

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# HARD WATER.

"THE QUEEN," of October 24th, 1885, says:—"For softening hard water use the

## 'ANTI-CALCAIRE' POWDER,

QUITE HARMLESS AND INEXPENSIVE."

Sold by the Patentee, P. A. MAIGNEN, 32 St. MARY-AT-HILL, EASTCHEAP, LONDON,  
In Tins at 2d., 6d., 1s., and 2s., with instructions printed on the tins. *Liberal Discount to Wholesale Houses.*

## MAIGNEN'S Patent 'FILTRE RAPIDE.'

### TESTIMONIAL FROM LORD WOLSELEY.

*I have much pleasure in stating that Mons<sup>r</sup>. Maignen's "Filtre Rapide," which was used by our troops in the Expedition up the Nile, gave very satisfactory results indeed. It filtered the water both quickly and well, and was much valued by our soldiers.*

3 Hill Street, W, July 28, 1885. (Signed) WOLSELEY.

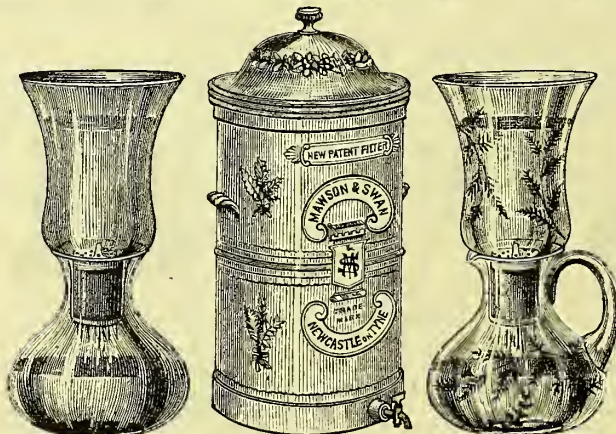
Full particulars in Pamphlet, "Water, Preventable Disease, and Filtration," to be had from the Author,  
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# MAWSON & SWAN'S NEW FILTERS.

## SUITED TO EVERY CLIMATE.

### THE MEDIUM

Is arranged in layers of successive fineness, supported on & covered by glass wool, held in position by perforated plates mechanically secured, which can be removed for cleansing or renewing the medium.



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Perfect graduated Action.  
Simplicity. Security.  
Easily and economically renewed at home.  
No block to become worn out, choked, or channelled.  
No tubes or joints for leakage.

Retail Prices:—Plain.....4/6 | 1 2 3 4 gall. | Engraved.....6/6. Subject to liberal Wholesale  
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NOTICE TO CHEMISTS AND MANUFACTURERS:

# DESIDERATUM MIXER

## BRACHER'S PATENT

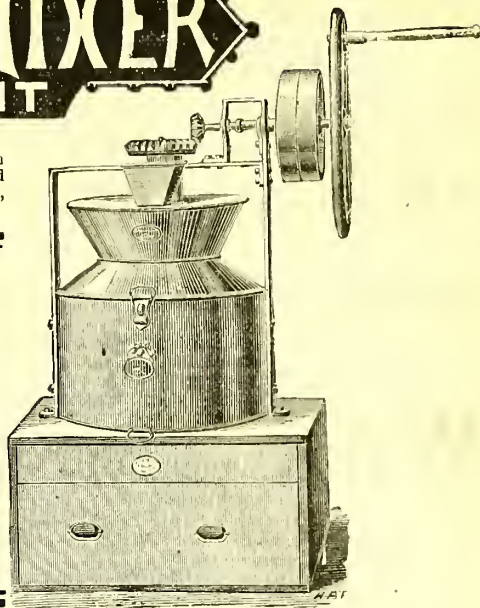
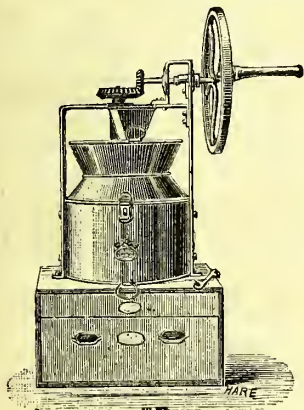
A REAL TIME, LABOUR, AND MONEY SAVER.

These Machines are admirably adapted for mixing all kinds of powders, heavy or light, in the shortest possible time, thereby superseding to a great extent the use of the pestle and mortar, supplying a long-felt want amongst Chemists and Druggists, Grocers, Confectioners, Drysalers, Colour Merchants, and Manufacturers.

CALCUTTA INTERNATIONAL EXHIBITION.



GOLD MEDAL.



UNSOLICITED TESTIMONIAL IN FAVOUR OF THE "DESIDERATUM" MIXER (BRACHER'S PATENT).

From CHARLES GOLDSTRAW, Agricultural Chemist, &amp;c., 24 Oxford Street, Eilston, November 27, 1885.

GENTLEMEN,—If my opinion is worth anything to you, I am pleased to append the following:—After having used one of your 28-lb. size "Desideratum" Mixers some two or three years, and wanting a larger one, I took considerable trouble in ascertaining if I could find a mixer which would do the work more effectually; but I must candidly admit that, after most careful and exacting comparisons on all points, I give yours the preference; hence the present order for a 2½-cwt. size.

Messrs. P. H. BRACHER &amp; Co.

Yours, &amp;c.,

C. GOLDSTRAW.

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GOLD  
MEDALS.

# DALES' GOLD MEDAL PORPOISE OIL DUBBIN

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EBOR CONFECTIONERY WORKS.

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Lozenges of all descriptions made from Customers' private formulæ (or ingredients), and stamped with any name or device.

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ESTABLISHED 1843.

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Used by Chemists, Soap Makers, and Confectioners.

It does not adhere, is cheaper than Tin-foil or other substitutes. This Tissue is specially prepared free from TASTE or SMELL.

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It is crushed from a special growth of Linseed, which being extremely fine and bold, and at the same time having an exceedingly thin skin, gives when crushed a very large proportion of Meal to Husk.

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It is lightly crushed, and will keep far longer than when heavily crushed and bruised, as in this case, the Oil being partially pressed out, the sample is darker, and will not keep so well. Applications for samples invited. Always esteeming your orders,

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No. 1. BEST LIGHT CRUSHED LINSEED, containing all the Oil, guaranteed strictly pure. 18/6 per cwt. Bag free.

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The CORRUGATED PAPER should extend half an inch beyond the ends of the bottle.

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100 " " "	10/
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The Material can be cut to any size with an ordinary pair of scissors.

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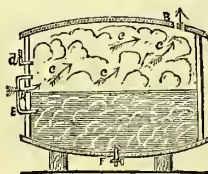
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**NEW METHOD OF MAKING VINEGAR,  
BY THE REVOLVING APPARATUS  
(Michaelis' Patent).**

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Instantaneous and Perfectly Inodorous.

6 oz., 6d.; 4s. 3d. per dozen.

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24-lb BOXES, containing 24 1-lb. Packages...	Per Box 6/6
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As specially noticed in the *Lancet*, *Chemist and Druggist*, &c., can be obtained only of the Inventors and Makers; cannot get out of order, and are therefore specially suited for Export.

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4-inch or 6-inch, in Ebony or German Silver Case, 4/ each.  
Fahrenheit or Centigrade scale, Fig. 1.

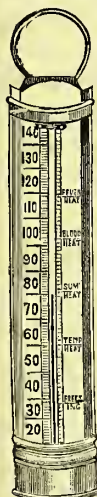


FIG. 1.

Do., in Sterling Silver case, 6/ each.  
Ordinary Pattern, Contracted Stem, in German Silver case, 4-inch, only 3/ each.

**DARTON'S IMPROVED LENS FRONT IMPERISHABLE INDEX CLINICAL THERMOMETERS**, 4-inch or 6-inch (Fig. 2), 7/ each; if with contracted stem only, 6/ each.



FIG. 2.

1 Bent and 1 Straight 6-inch Clinical Thermometer in morocco snap case, 9/ the set.

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2,000 GROSS of Eye Protectors for preserving the eyes from the glare of the sun and sand as supplied to H. M.'s Government troops for use in Egypt, at 30/ per gross.

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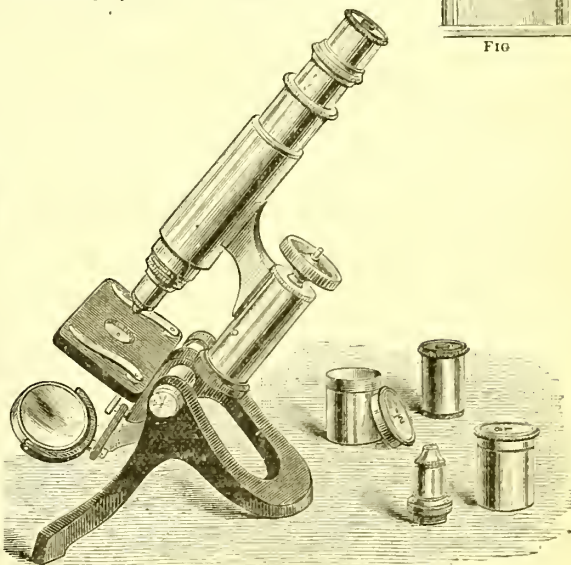
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FIG. 7.



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Affections of the throat are among the most common of diseases, and, as a rule, fortunately amenable to simple and very practical methods and devices. While the development of laryngology has been rapid and substantial, the general demand now seems to be for a simplification of methods to everyday medical practice. The laryngologist who with brush or probang deftly applies his weak solution direct to the diseased laryngeal mucous membrane of his patients in a certain percentage of cases effects a cure. But it should be recollected that very many throat cases are successfully treated by men who never saw the interior of a larynx. By this there must not be understood any abatement of profound respect and admiration for proficiency in laryngology, and an appreciation of the blessings such proficiency confers.

Among the genuine advances in modern medicine is Witch Hazel, which is given largely in diseases of the nares, mouth and throat. It may be used as a gargle or in the form of a spray. By the latter means the entire respiratory mucous membrane may be most effectually medicated. When there is intense dryness and pain, with little secretion, when there is tonsillitis, or catarrh, the inhalations of steam medicated with Witch Hazel afford great relief. It relieves as by magic the pain of sore throat, ulceration, quinsy, and acute bronchitis, and has been used successfully in many cases of epistaxis and hæmorrhage from the larynx and lungs. In mucous patches and painful syphilitic ulcers of the mouth, WITCH HAZEL and COMPRESSED TABLETS (WYETH) OF CHLORATE OF POTASH excel all measures in the relief they give.

Hazeline is the preparation of Witch Hazel almost universally prescribed by physicians in hospitals and private practice.

A most practical improvement in the treatment of throat affections was the introduction of the COMPRESSED TABLETS (WYETH). They are snowy-white bodies of tiny lenticular form, and substantial consistence. They are pleasing to the eye and acceptable to even the most fastidious. There is no sugar, paste, or other admixture in them to interfere with the local or general effects of the medicine. They are made by great pressure, and from the very purest of drugs. THE BRITISH MEDICAL JOURNAL says:—"The Wyeth Tablets are manufactured with the utmost neatness and perfection." They have become extremely popular with the medical profession, because they afford the most gratifying results possible. By their use the remedy is brought into direct contact with the mucous membrane, and its specific action made certain. They should not be crushed in the mouth, but can be almost unconsciously held under the tongue, even when speaking or singing in public. The principle of maintaining continuous medication of the throat by tablets is endorsed by such a distinguished authority as Dr.

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Recently we have prepared a "VOICE TABLOID" of most favourable combination and certain activity, constituted of COCAINE, Chlorate of Potash and Borax. It operates like a charm. A husky voice is cleared as by magic in the course of a few minutes by one or two of these voice tabloids. COCAINE soon relieves irritation and dryness of the throat, restores the tonic of the vocal chords, and effects a grateful secretion. Singers find that even in health the richness and fulness of the tones are increased by the use of Cocaine, and public speakers and those who are subject to sore throat affirm that Cocaine affords them a considerable degree of immunity on exposure. It saves the keen sensibility of the throat from the shock of trying conditions, and assists to inure it to unfavourable influences.

CHLORATE OF POTASH COMPRESSED TABLETS (WYETH) are a very favourite remedy with the profession. The celebrated Dr. Lennox Brown pronounces them "infinitely superior to lozenges." In acute sore throat Chlorate of Potash "usually relieves the uneasiness in a few hours" (Cohen). "Topically it acts as a stimulant to mucous membranes" (James). "It is chiefly used to bring about a more healthy condition of the mucous membrane of the mouth and throat, and acts like a charm in follicular stomatitis" (Wood). In spongy, bleeding gums, and ulceration of the gums and adjacent surface, "it cures the dirty-looking ulceration, and heals it in a day or two."

It clarifies the throat and voice, and averts an oncoming attack of nasal catarrh or sore throat. Dr. Prosser James says:—"Chlorate of Potash exercises great influence on mucous membrane . . . and has been the means of saving many a life."

COMPRESSED TABLETS (WYETH) of Chlorate of Potash and Borax:—The virtues of Chlorate of Potash may be greatly enhanced by the presence of Borax. Borax is proverbially known to quickly relieve hoarseness, irritation in the throat and bronchi, and when taken early to avert a cold. The thick and husky voice due to chilliness or exposure, or an incipient cold, abates under its use, so that its clear bell-like timbre is restored in a couple of hours. Public speakers and singers, and those with weak and sensitive throats, find the tonic effect of the borax on the muscles decided and efficient. Thus it is an antiseptic, correcting perverted oral secretions, cleansing the mouth, and imparting to an offensive breath the wholesomeness of perfect health. Borax is almost a specific for "clergyman's sore throat," and proves not only a preventive of diseases of the nares, throat and larynx, but by taking a few minutes before using the voice it will be clearer and stronger than ever. Our compressed tablets and tabloids commend themselves for efficiency, purity, accuracy, agreeability, and convenience. They are easily carried about by the patient in the pocket.

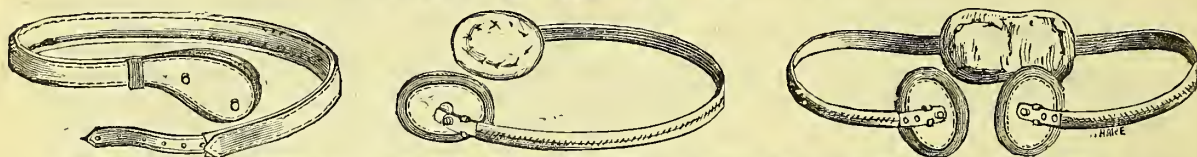
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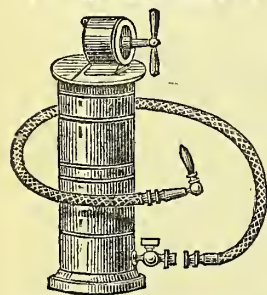
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*Cod liver oil, and emulsions prepared with pancreatines, pepsines, essential oils, potash, &c.*

Having referred to the usefulness of oil in assisting digestion, the way in which its own digestion is facilitated by the presence of nitrogenous food should not be overlooked; "probably the partially digested food forms it into an emulsion" (Brunton).

In the process of fattening, it is known that if only nitrogenous and starchy foods be given, the body weight as a rule remains stationary, whereas if but a little oil be added to the food the increase of fat in the system will be far in excess of that ingested. It is also found that if the oil be not thoroughly incorporated into the food, it is apt to upset digestion. A very common mistake in administering oil is to give too much at a time. A small dose may prove a boon—a large one a bane. One office of albumen in promoting fat digestion may be its enveloping the finely-divided globules in a nitrogenous pellicle.

Increasing the acceptability and digestibility of one food by combining it with another is of the most signal service in dietetics. But what shall we say regarding the composition of certain emulsions? Let us consider some of them:—

In making them, potash is sometimes used, but in the stomach the potash is probably neutralised, the emulsion decomposed, and the oil liberated (Brunton).

Next come the emulsions in which it is claimed that pepsine and pancreatine have been employed as agents to digest the oil. First, as to pepsine: If there is one point in physiology that is settled beyond all question, it is that pepsine digests proteids only, and not oils or starch. It would be as reasonable to say that the digestion of cod liver oil was effected by ptyalin as by pepsine. A more absolute disregard of the elementary principles of physiological chemistry than this it is hard to imagine. It is as impossible to digest oil with pepsine as it is stones.

After pepsine comes pancreatine; and that some have fallen into error here is incontrovertible. Claude Bernard himself supposed that the emulsification of oil was due to a digestive enzyme, which he called "ferment emulsif." Now, there has never yet been an *emulsive ferment* isolated, and the latest investigations seem to point to the conclusion that pancreatic emulsification as effected in the intestine is due to the changing proteid matter in the presence of an alkali. *Such an emulsion is not a stable one.* Emulsions prepared artificially owe any permanence they possess to some adventitious substance. It is a compliment to the clinical observations of the profession that these preparations have enjoyed a very transitory and trivial notice from its distinguished members. The very name "peptonised fat" or "oil" is a misnomer, as only proteids can be converted into peptones—and properly said to be peptonised. So much for "peptonised oil."

Essential oils enter largely into emulsions, but the trouble with them is that they always increase the tendency to eructations (Williams).

It should not be a matter of indifference but extreme satisfaction to medical men, and we are gratified to state that the results of the cod fisheries this year have been most favourable. Cod liver oil is apt to be best during the winter and early spring, and this fall our oil is exceptional. The fish have been good and their livers yielded a large amount of the most beautiful oil. We further desire to state that the *Kepler Cod Liver Oil\** is the virgin drippings from the choicest selections of livers from freshly-caught healthy Norwegian cod of the true species *Gadus Morrhua*. It is of the very finest quality, and prepared upon the coast of Norway with the most scrupulous care, by a skilful chemist who has made it a life study to produce from fresh cod livers a perfectly pure and tasteless oil, and at the same time to preserve all the nutritive and therapeutic qualities. This he has now effected by a new and original "*cold process*." The flavour is so extremely delicate that it may be easily administered to patients who refuse to take ordinary cod liver oil.

For those cases where cod liver oil does not agree, the following is apropos:—After making some improvements recently in our process of manufacture of *Malt Extract*, we found that we were able to produce a pure malt possessing the power of effectually dissolving cod liver oil. Now, if those who are sceptical will examine a drop of our *Improved Kepler Solution of Cod Liver Oil and Malt* under the microscope, they will find the oil dissolved.† Let it be distinctly understood that the malt in this solution embodies no principles of grain like wheat or oats, both of which are inferior in diastase and force producers, but is solely manufactured from the best barley that can be grown. Be careful, therefore, not to confound the *Kepler Malt Extract* with any other product, but specify this preparation when it is desired.

In the *Improved Kepler Malt*, then, the finest Norwegian Cod Liver Oil is *dissolved*—not emulsified—and this without using the objectionable agents or adulterants above referred to, nor any extraneous substance whatever. In taste it is as delicious as fresh sweet cream, and its acceptability is all that the most fastidious and delicate could desire. Besides this—the greatest point attainable in preparing food—there is the superlative advantage arising from the common-sense and physiological principle of increasing the digestibility of one food by administering it with another. In this case an oil is entirely *dissolved*, and yet free from every contamination. Cod liver oil is a greater food than cream, and passes into the lacteals sooner than any other known oil. It is more nutritive than meat and farina, for it gives two and-a-half times the amount of force. The *solution* of pure *Norwegian Cod Liver Oil* in the improved *Kepler Extract of Malt* is a preparation fully perfected in every regard, and embodying all the advances of recent scientific research and the possibilities of improved pharmacy. As a food, it takes the highest place.

BURROUGHS, WELLCOME & CO.  
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\*† Trial Specimens supplied to the Profession free, upon request.



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See "CHEMIST AND DRUGGIST," December 15th, 1874

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The Index and Title Page to THE CHEMIST AND DRUGGIST is ready, and will be sent to any subscriber who will apply for it by post-card. It will be included in our foreign issue.

\*\*\*

Next month, January 15, 1886, we shall give a very important circulation to THE CHEMIST AND DRUGGIST, covering the chief of the drug firms of the United Kingdom, the entire drug trade of the Australasian Colonies, the best chief houses in all other parts of the British Empire, and a selection of about a thousand of the principal houses in Spain and Spanish South America. For the latter a summary of the number will be given in Spanish. We strongly recommend the occasion to advertisers, and especially call attention to the fact that we can undertake to include price-lists and special circulars as supplements.

\*\*\*

Our representatives for the United States left Liverpool by the s.s. *Etruria* on the 5th inst. After Christmas we shall have a permanent office in New York, the address of which will be given in our next number. For the present they may be written to, to the care of Mr. C. F. A. Hinrichs, 29 Park Place, New York. Our intention is to make THE CHEMIST AND DRUGGIST as well known in the neighbouring hemisphere as it is in this one.

\*\*\*

The active section of the Pharmaceutical Council are pushing on with some vigour the proposal to establish a research laboratory. We have previously expressed the opinion that in carrying out this scheme the Pharmaceutical

Society will be spending a part of its superfluous income in a manner which will be at the same time creditable to British pharmacy and useful to British pharmacists. The equipment of such a laboratory, the rent of the premises, the salary of a competent director, and the necessary working expenses will occasion considerable expense, which should be carefully estimated. But it is not likely to be above the means of the Society. It is satisfactory to know that it is not intended to limit the opportunities of attendance at this laboratory to students from the Society's school. If this catholic spirit be maintained, the laboratory will have the sympathy of all who wish well to the pharmacy of this nation.

\*\*\*

The Pharmaceutical Council have received a communication from the Privy Council with reference to a suggested addition to the Poison Schedule. It may be presumed that this suggested addition is carbolic acid. A few more accidents with this poison during the next month might perhaps encourage the deliberations of the two respectable bodies who have been negotiating about this most deadly of our modern poisons for years past. One man on either council who really felt his responsibility would have had carbolic acid on the schedule long ago, and would have certainly saved some, perhaps many, valuable lives.

\*\*\*

Professor Oscar Oldberg, of Chicago, who has for years pelted American pharmacists with arguments for the adoption of the metric system of weights and measures, has lately published a recantation of his previous opinions. It would seem likely that the recent death due to a misreading of a metrically expressed dose has somewhat influenced Professor Oldberg. He now considers that "human life ought not in any way or degree to be dependent upon a frequently misplaced, misinterpreted, omitted, duplicated, or illegible dot." Moreover, the Professor has discovered the convenience of a system of weights and measures which admits of subdivisions without fractions down to unity. This is possible to the old weights and measures to a much greater extent than it is to the scientific metric system. Of course, Professor Oldberg still advocates some modification of the present system, his object being to make apothecaries' measures and weights correspond, and to bring these into a more definite relation with the metric system. Some of our home decimalists would do well to consider the question as frankly as Professor Oldberg has done.

\*\*\*

Much regret is expressed in medical circles at the death, from diphtheria, of Miss Frances Helen Prideaux, M.B., B.S. Lond., L.R.Q.C.P. Ireland. She was one of the most distinguished of the lady medical students who have done so much service to this generation, and although not far beyond the starting point of her career, had acquired a very honourable reputation in the medical profession. She was assistant physician to the New Hospital for Women in the Marylebone Road, and had just been appointed house surgeon to the Paddington Children's Hospital.

\*\*\*

The *British Medical Journal* would make Mr. Ernest Hart appear to have been sacrificed politically to the soundness of his vaccination and vivisection views. He had to encounter in Mile End, we are told, "a severe and continuous opposition from both sections of the agitators opposed to vaccination and to experiments on animals." It was reported that Mr. Hart was a little disposed to "hedge" during the election. However that may have been, it is as well for candidates, as for other politicians, to bear in mind that constituencies will look to their special, as well as to their general, opinions and conduct.

\*\*\*

We believe the Pharmaceutical Council are disposed to act mercifully towards Mr. F. W. Fletcher, notwithstanding the enormity of his offence. In criticising some of the defects of the Pharmacopœia at a recent evening meeting, after describing how the succuses were playing hide and seek in various parts of the book, he asked the President if that was an instance of successful editing. Nothing can justify such a crime, but it is hoped Mr. Fletcher will live to repent of such irreverence.



The Austrian Pharmaceutical Society has offered two prizes of 100 florins each for the best essay on the following subjects:—(1) "Comparative examination of the best-known methods for estimating the amount of morphia in opium, and, if possible, indication of a new method, which should be very simple, but sufficient for practical requirements." (2) "Manufacture of a guttapercha plaster of precisely equal value to the American." Only Austrian pharmacists may take part in the competition. This is unfortunate, or the munificent sum offered, something under nine pounds sterling, might have induced our friends Messrs. Seabury & Johnson, whose plasters seem to be the object of imitation, to reveal their methods of manipulation.

\* \*

At the Battersea election there was a rather curious splitting up of firms. The original Conservative candidate, Mr. Evill, of the firm of Orlando Jones & Co., was stoutly opposed politically by his partner, Mr. Kemp-Welch; while the firm of May & Baker, manufacturing chemists, provided the presidents of the rival committees, Mr. Baker leading the Conservative forces, and Mr. Tyrer those of the victorious Liberal party.

\* \*

Messrs. Parke, Davis & Co., of Detroit, have directed our attention to an advertisement published by Messrs. John Richardson & Co., of Leicester. The latter firm, describing "Ext. Cascara Sagrada Liq.," claim to have originally introduced the preparation, and remark on the "various imitations" of their product. It is certainly generally understood that Messrs. Parke, Davis & Co. introduced this remedy, which, in their letter to us, they say they "are proud to learn has lately been taken into the British Pharmacopœia." The first shipment of the drug ever made, they tell us, was from California to Detroit in 1877, and it was first brought before the British medical profession by them at a meeting of the British Medical Association at Cork in 1879. Persons interested should obtain their "Working Bulletin of Cascara Sagrada," which gives a very full scientific and therapeutical report on the remedy from various sources.

\* \*

It will be noticed from an advertisement in this issue that the Chairman of the London Homœopathic Hospital and Medical School offers a prize of 25 guineas for the best essay on Medical Treatment, with special reference to the scientific system of Hahnemann. We shall be glad to report that this prize has been secured by a pharmaceutical homœopath.

\* \*

The Pharmacopœia Committee of the General Medical Council has been reappointed as a standing committee, with power to appoint a sub-committee, who shall prepare for publication, by way of appendix to the present Pharmacopœia, when necessary, such changes or additions as may be deemed desirable, for which purpose a sum not exceeding 100*l.* per annum is placed at their disposal.

\* \*

A law case which might have been of interest has been spoiled by the too great eagerness of the plaintiff and the amiability of the defendant. Dr. Stretch Dowse applied to the Chancery Division of the High Court of Justice last month to obtain an injunction against Battle & Co., of Southampton Row, to prevent them from publishing a letter which he had written to them expressing a high opinion of the virtues of a medicine they were selling under the title of "Bromidia." The case came first before Vice-Chancellor Bacon, and afterwards on appeal before Sir James Hannen and Lords Justices Bowen and Fry. The courts refused the application, because it appeared that the doctor had not asked Messrs Battle to discontinue the publication before having a writ served on them. And it since transpires that the defendants are willing to forego the advantages of Dr. Dowse's testimony rather than litigate with him.

\* \*

In a lecture recently delivered before the Society of Arts, Professor Silvanus Thompson stated that England pays an annual fire bill of 2,000,000*l.*, the greater part of which might be saved by the use of proper appliances. The object of his lecture was to describe various automatic fire-extinguishers, most of them American, the general principle being

that at a certain heat a cord is broken, solder melted, or in some other way a valve is opened which permits an abundant supply of water. The notion that insurance covers the national loss he pointed out as a ridiculous one.

\* \*

It is rumoured that the Council of the Institute of Chemistry intend to propose the suspension of the rules fixing examination as the sole condition of admission, and to accept some fellows on certain "evidence of fitness" not yet formulated.

## CORRECTIONS OF THE BRITISH PHARMACOPŒIA, 1885.

THE following sheet of corrections has been sent to us by the Registrar of the General Medical Council. Any chemist can obtain a copy by applying to the Registrar, at 299 Oxford Street, London, W.; but this may be avoided by at once marking the alterations in the text of the Pharmacopœia. Mr. Moss, in a letter which we publish this month, remarks on the bald manner in which the corrections have been issued. It would certainly have seemed reasonable that some official character should have been given to such a document by advertisement in the *Gazette*, or at least by the imprint of the Government printers. The fact that the corrections have been sent to us from the office of the General Medical Council is, perhaps, a sufficient assurance to all but the most strictly-methodical minds.

The following are the official

### CORRECTIONS.

Page 109, line 35,	read	As purified by solvents it is a
" 149, " 28,	for	fourteen read thirteen
" 154, " last,	"	drachms " fluid drachms
" 164, " 11,	"	$\frac{1}{2}$ to 2 " $\frac{1}{2}$ to 1
" 176, " 35,	"	eight " seven and a half
" 211, " 14,	"	Root " Rhizome
" 213, " 21,	"	CH <sub>3</sub> I " CH <sub>3</sub>
" 230, " 27,	"	17 $\frac{1}{2}$ " 15 $\frac{1}{2}$
" 232, " 3,	"	one pint " 24 fl. ozs.
" 241, " 17,	"	1·407 " 1·047
" 249, " 28-29,	"	insoluble " soluble
" 379, " 27,	"	0·886 " 0·896
" 404, " 19,	"	to " in
" 416, " 10,	"	Root " Rhizome
" " 34,	"	proof " rectified
" 433, " 26,	"	" " 191
" 450, " 18,	"	19, " 7
" 460, " last,	"	8, " 7
" 190, " 6,	add	Glycerine of Alum
" 164, " 16,	omit	in powder

### To cross references.

Page 4, line 10,	add	Linimentum Terebinthinæ Aceticum
" 34, " 8,	"	Unguentum Hydrargyri
" 57, " 17,	"	Liquor Atropinæ Sulphatis
" 228, " 16,	"	Tinctura Quinina Ammoniata
" 278, " 6,	"	Trochisci Acidi Benzoici
" 316, " 24,	"	Emplastrum Plumbi Iodidi
" " 26,	"	Glycerinum Plumbi Subacetatis
" 44, " 22,	omit	Liquor Ammonii Citratis Fortior
" 115, " 17,	"	Acidum Sulphuricum Aromaticum
" 314, " 27,	"	Glycerini
" 405, " 13,	for	" Liquidum read Liquidum (dried)
" 31, " 16,	"	1 read 1 $\frac{1}{2}$ fluid ounce
" 73, " 13,	"	" " 10
" 49, " 3,	"	11 " 8
" 80, " 25,	"	6 " 4
" " 26,	"	5 " 14 $\frac{1}{2}$
" 92, " 21,	"	22 " 12
" " 22,	"	8 " 10
" 115, " 24,	"	11 " 10
" 202, " 30,	"	8 " 10
" 315, " 20,	"	9 " 4 $\frac{1}{2}$
" 331, " 13,	"	4 " 16
" 355, " last,	"	8 " 16



## Pharmacalia.

### THE STUDY OF THE PHARMACOPŒIA.

MANY writers have insisted strongly on the value of observation—that is, the cultivated habit of seeing objects which surround them, marking their peculiarities, and by the storage of such observations adding to the sum of knowledge. Lord Bacon, on the one hand, based his philosophy on this mode of direct study; and Charles Dickens, on the other hand, though not open to the charge of want of inventive faculty, in one of his prefaces ascribes his whole success to the perpetual cultivation of this power.

We may not hope to equal Francis, Earl of Verulam, nor our great English writer of this century, but we may follow in their track, and come much nearer than otherwise we could have thought possible, for the daily occupation of the pharmacist seems to offer exceptional facilities for this mental effort which never goes unrewarded, and in which, in his special instance, trade and intellectual interests are united.

Happily for others, no true observer takes his treasure and hides it in the ground—the tone and character of his mind forbid such a practice. While, therefore, by all means, the power of observation should be carried to its possibility, he is a foolish and often a mistaken observer who neglects the recorded investigations of those who have gone before him. That is a sign of contented ignorance, not of independence, and may be dismissed without further words.

Suppose that each one for himself should gain the habit of looking with intelligence on the objects with which he is surrounded; seeing and noting their behaviour and reactions; comparing his experience with already-published information, and committing to manuscript his own personal observations, how greatly would he advance his own knowledge and skill! An apprentice may do this, and he should, and in so doing he will not injure his master's business. Later on he may attend some public course, or be entered at a school, when the reason for much that he has observed will be made apparent. Then pre-eminently the power of observation will stand him in good stead. Professors teach how to learn and how to economise labour by adopting tried methods of manipulation and research. Further they cannot go, except by personal example, for the difference between one student and another is that the one observes and the other acts mechanically.

Next, with trained faculties the student leaves the school and enters daily life, and from him, the observer, comes our ever-advancing chemistry, our better pharmacy, our more enlightened trade, and our whole prosperity.

A new British Pharmacopœia has of late monopolised attention. It is filled with various preparations from which the medical profession may select remedies of known composition. The province of the chemist is to construct these in the simplest manner consistent with undoubted efficacy. Were not one here and there, but the pharmacists of Great Britain, to combine in keeping a record of their observations, a work of supreme excellence would be the result.

Let it not be thought prosaic to give some general hints about the mode of studying the new pharmacy. Two books are necessary—the old Pharmacopœia of 1867 with Addenda, and the new edition.

These remarks are meant for young students, and may be neglected by the rest. The nomenclature will give no trouble, for in the main it is based on the received method adopted for chemical compounds. The alkaloids and neutral principles require attention. It is well to read carefully the list of

Articles and Preparations the names of which have been altered; but deducting pure chemical changes, the points to be recollected are few. Note where “rhizoma” has been substituted for “radix”; and that “chlorinata” takes the place of “chlorata,” as it naturally should; that it is “semen,” not “faba,” *physostigmatis*; and that the *magnesias* are more definitely named. The five Substitutions also come under the heading of changed nomenclature.

The word “lamella,” which is translated “disc,” is the diminutive of “lamina,” which means a thin piece of metal, often applied to money, therefore a round, thin plate. A round, very small thin plate was the lamella, hence its use in pharmacy. “Tabella,” the diminutive of “tabula,” is translated “tablet,” a term which is not new.

It has been found useful to mark with an asterisk the 116 Articles and Preparations which have just been introduced throughout the body of the book. This should be done neatly, so as not to disfigure the printed page, and before commencing study. This is better than the vain attempt to learn by heart so many preparations, and, being a perpetual reminder, is a good plan. There are numerous articles, retaining the old names, which differ slightly in composition. In such cases write the word “altered” above the Latin heading, marking without fail in the margin what the alteration is. Where an essential change has been effected, although the old name is retained, write the word “amended,” copying without fail in the margin the entire superseded formula from the 1867 edition. The act of doing this, with the attention and the care involved, will teach far more than trusting to ready-made arrangements, which are supposed to make learning easy.

No Pharmacopœia, however laboriously compiled and edited, can be issued from the press in a perfect state. Errors will and must creep in. The first duty of the student, as it is the first act of a literary man, is to insert at once the whole list of published errata into the text. Without this precaution mistakes will be perpetuated and constant annoyance felt.

Leaving these mechanical appliances, let the student be warned not to weary himself with an alphabetical method of reading. The alphabet is good for printing, not for study; and there is nothing more dispiriting or less instructive than to slave over the consecutive pages of a work of reference. The moment a student has acquired the art of grouping his facts together, he has made a stride in gaining knowledge.

The Extracts will serve as an illustration. Some are made from *succus*: group the *succi*. Some are made by percolation: group the *percolates*. Others by maceration: group these, and follow out this plan to its last possibility.

How to group may be seen in Whitla's unequalled work on “Pharmacy, Materia Medica, and Therapeutics”—only let the book be used and not abused; for grouping or tabulation not made by the student's own hand is worth comparatively little.

Attention may be directed to the class *Infusions*, where a shortened time has been permitted, differing in some instances essentially from the old directions. A few hours spent in tabulation will be most usefully employed. The same idea may run through the various sets of preparations, and is capable of other applications. Note the cases in which spirit has been subtracted, or altered in relative proportion; in which water has been added, not accidentally, but for a purpose, and in which, and also with what intention, *glycerin* has been employed.

The facts will thus stand out clearly, and not in a confused heap which it needs a supreme effort of memory to recollect.

The major preparations form studies of themselves, and



hardly admit of classification. Amongst them are the spiritus ætheris nitrosi and extractum cinchonæ liquidum, both emanating from Professor Redwood; extractum nucis vomicæ, with its tincture; standardised preparations for which we are indebted to Messrs. Dunstan and Short; spiritus ammoniæ aromaticus, the formula of Dr. Thresh; the iron liquors, with their corresponding tinctures, improved formulæ of Professor Attfield. These will serve as types, and have been rendered familiar by the recent discussions which have taken place.

The groundwork having been thus laid, minuter details may be attempted, together with the careful study of characters and tests.

A much higher step will lead to the chemistry contained in the Appendix, about which criticism has been somewhat reticent, and which may be safely left to more advanced students, who for the most part work out this essential branch of pharmacy under competent direction.

For those only who are on the threshold of their studies are these remarks intended.

## The Pharmaceutical Council.

THE Council met on December 2. Mr. M. Carteighe, President, in the chair. Messrs. Squire and Williams were absent.

### EXAMINERS.

The first business was the nomination of examiners. The only change made was the substitution of Mr. Thomas Porter Blunt, of Wyle Cop, Shrewsbury, in place of Mr. Naylor, who resigned on the ground that he could not devote the necessary time to the duties of the position.

### THE POISONS SCHEDULE.

The Council went into committee to consider a communication from the Privy Council with regard to a suggested addition to the Poison schedule. It was resolved to refer the matter to the Law and Parliamentary Committee for consideration and report, with instructions to consider if it were desirable to add any other potent drugs to the list.

### THE BY-LAWS.

Another communication from the Privy Council with reference to the new by-laws was referred to the By-Laws Committee for reply.

### BENEVOLENT FUND.

The Committee recommended eight grants of assistance—two of 15*l.* each, four of 10*l.* each, and one of 5*l.*; all to chemists and druggists or their widows, none of whom had been connected with the Society. The remaining grant of 10*l.* was made for the Isherwood orphans. The recommendations were all agreed to.

The President mentioned a donation to the fund of 52*l.* 10*s.* from Mr. Alfred Bishop, who had now contributed 157*l.* 10*s.* in all.

### INFRINGEMENTS OF THE PHARMACY ACT.

The Solicitor's report stated that—

W. B. Mason, 13 Albion Street, and 14 and 16 Arcade, Leeds, and

Richard Knowles, Market Place, Ashton-under-Lyne, had paid penalties and costs into Court.

Charles Durant, 27 Bargate, Boston, had also paid a penalty.

In several instances there had been a difficulty in obtaining evidence, and the cases were not yet complete.

The General Purposes Committee had considered and approved a case which had been drawn for the opinion of

counsel in a case in which it was deemed desirable to take proceedings if there were any chance of success.

The Solicitor attended, and the Council went into committee to consider the draft case, which was finally approved.

### GRANTS TO PROVINCIAL ASSOCIATIONS.

The grant of 50*l.* applied for by the North of England Pharmaceutical Association had been considered by the Library Committee and was recommended by them. Subsequently it was agreed to by the Council.

An application for a grant was also received from the Sheffield Chemical and Pharmaceutical Association, and was referred to the Committee.

### INSTRUCTION IN PRACTICAL PHARMACY

The Library Committee reported that they had considered this subject, but recommended the postponement of the subject for about six months.

### SYSTEMATIC PHARMACEUTICAL RESEARCH.

The same Committee had had this subject before them, and expressed the opinion that the object could best be promoted by the formation and equipment on the Society's premises of a suitable laboratory in which original investigation and research in chemistry and pharmacy could be carried out by advanced students and others, under the superintendence of a competent director and the general direction of a committee, subject to certain regulations to be hereafter framed. Having regard to the want of space in the present premises, it was not considered practicable to carry out this recommendation at present, but the Committee was of opinion that as soon as the Society could acquire an extension of its premises a research laboratory should be provided.

This recommendation led to a somewhat lengthy discussion. It appeared from the speeches of the President that some adjoining premises could be obtained very shortly, and it was in view of leasing these that the Committee had made their report. The Committee had not decided that the establishment of a laboratory was the sole way of promoting research, but they thought it was better to begin in their own house. It was universally agreed, however, that the laboratory would be open to any advanced student connected with the Society, from whatever school he might come. The President mentioned as likely subjects of research inquiries into the natural history and chemistry of drugs, as, for instance, aconite or belladonna; investigation into the chemistry of new drugs; verification of the formulæ of the British and other Pharmacopœias. Students would work in such a laboratory without remuneration, and they would have the opportunity of becoming good workers, so that whether they afterwards went into retail businesses, managed wholesale laboratories, or went into abstract science, they, the Society, and pharmacy generally, would gain much. At the University of Edinburgh there was a laboratory of something like this character under Professor Fraser, but his students were mostly medical students who wanted to get away from him as soon as they could. That, he believed, was the only properly-equipped research laboratory in the country.

Mr. HAMPSON, while he did not wish to discourage the scheme, thought they ought to have fuller details before committing themselves to it.

Mr. BORLAND would like to learn what stimulus there would be for young men to work in this laboratory.

Mr. SYMES also advocated delay, because it might be that they could find means of combining with this research-laboratory the institution for instruction in operative pharmacy which he had advocated.

Mr. SCHACHT, while he greatly desired to promote the advancement of pharmacy and the highest education of pharmacists, saw no occasion for undue precipitancy. He was not quite sure that they would best promote pharmacy by a laboratory in their own house, and he did not wish the Council to be committed to that principle.

Mr. GREENISH, the Vice-president, Mr. BOTTLE, Mr. HILLS, Mr. BUTT, and others supported the proposal, but it was ultimately agreed to receive the report only, and to request the Committee to consider the subject further.



## Pharmaceutical Society of Ireland.

THE monthly meeting of the Council was held on December 2, the President, Mr. J. E. Brunner, M.A., in the chair.

A letter, dated November 19, from Sir William Kaye, Clerk to the Privy Council, announced that the Lords Justices had approved of the Examiners appointed by the Council on November 4. Another letter from Sir W. Kaye announced that the Lords Justices, exercising the power of the Lord Lieutenant, had appointed Dr. George F. Duffey as Government Visitor to the Society's examinations.

Letters were also read from Dr. H. C. Tweedy and Mr. H. C. Draper thanking the Council for having appointed them Examiners.

A letter, dated November 17, was read from Dr. Robert Montgomery stating that it was not his intention to continue his subscription to the Society.

The President expressed his regret at Dr. Montgomery's decision. He was a most useful member of the Council, and always ready to attend committees.

In reply to an inquiry as to the reason for Dr. Montgomery's retirement, the PRESIDENT said he was a candidate for the appointment of Government Visitor at the examinations. We cannot imagine that the fact of his not having been selected by the Privy Council is any reason for his leaving the Society.

On the motion of Mr. Hayes, seconded by Dr. Tichborne, a resolution was unanimously passed asking Dr. Montgomery to reconsider his decision in resigning membership of the Society.

### EVENING MEETING.

On December 2 the Society held their first evening meeting of the present session, in their rooms at 11 Harcourt Street, Dublin, Mr. Brunner (President) in the chair. Professor Tichborne read a paper on the "General Features of the British Pharmacopœia, 1885." He condemned the lavish use of alcohol in the preparation of the fluid extracts, and the use of camphor water for the preservation of solutions of the alkaloids, and recommended the use of salicylates of the alkaloids for preparing solutions.

An interesting discussion followed the reading of this paper, which was joined in by the President, Messrs. Draper, Allen, Frodman, and Doran.

Mr. Draper read some notes on the B.P. tests for castor oil, and argued that the castor oil dissolves the spirit, not the spirit the oil.

Mr. Carter Draper read a note on the "Precipitation of Lithium Chloride by Barium Chloride in Concentrated Solutions."

Mr. H. C. Draper exhibited a crystal of glycerine.

Mr. Doran, jun., read a short paper on "Tinctura Convallaria Majalis."

The attendance of members and visitors at this meeting augurs well for the future success of the evening meetings of the Society.

## Provincial Reports.

### BIRMINGHAM.

#### Notes written for THE CHEMIST AND DRUGGIST.

On November 10 the stock-in-trade, &c., was cleared out (under the hammer) of Mr. John Johnson, chemist and druggist, 21 Snow Hill, who is giving up the retail trade.

In consequence of again going "on the road," the business lately carried on by Mr. W. Long (formerly of Coleshill Street), chemist and dentist, at 49 Sherlock Street, has been closed.

The branch business of Mr. Fred. Gibson, carried on for several years at 147 Sherlock Street, has just been closed. The reasons "officially" notified to the public are the expiration of lease, and the enormous increase in the "drug and postal business" carried on at the chief establishment in Gooch Street.

"Still they come! It would appear as if Birmingham is looked upon as a mine of gold by the proprietors of "stores," for, in addition to those referred to last month, we hear that a London firm is in treaty with the principals of the largest business (of its kind) in our town, and in the most popular street; if satisfactorily concluded the business will in future be carried on as a mammoth store under new name and management.

It is not generally known that Mr. W. Showell, the well-known brewer, who recently essayed, but in vain, to be returned as a Member of Parliament for one of the divisions of our town, was several years ago one of our craft, and carried on business in the village of Oldbury, about seven miles from Birmingham. We may also mention that Mr. C. Holthouse, pill-box manufacturer, 7 Bordesley Street, was for some years engaged in business as a chemist and druggist in the North of England, and adopted his present trade on coming to Birmingham.

The new and commodious premises of Tomlinson Bros., lately built and opened by them in Bond Street, for the supply of druggists' sundries, &c., will prove of great advantage to the chemists of Birmingham and neighbouring towns.

The *Birmingham Daily Mail* gives an interesting sketch of an eminent chemist and physicist, whose name will not be unfamiliar to your readers:—In a dingy house in Broad Street, upon which few people have perhaps even noticed the inscription which sets forth that it is the Institute of Physical Research, Dr. George Gore, LL.D., is daily engaged in a system of research—explorations into the regions of the unknown, the value of which cannot be overestimated. Dr. Gore had very little schooling. He was born in Bristol, where his father was a working-man, about 1830, and was sent to work at the trade of a copper before he was fairly in his teens. But the hand of Science was already upon him, and early he began to manifest a desire to see into the reasons of things. The steam-engine he was not disposed to take for granted. He found out all about it and constructed a model of his own. And so with many other things. From mechanics to physics is not a great step, and he soon began to look into the wonderful book of physical science. While he was still a youth he came to Birmingham and found employment at the famous works at Soho. The atmosphere of the establishment of Boulton and Watt braced him up to deeper researches, and he began to study electricity. It was not long before he had established a laboratory of his own, and soon began to go deeply and originally into the science of electro-deposition. In 1855 he made some important discoveries with respect to the deposition of antimony, and in the following year discovered the first practical solution by means of which it was possible to deposit nickel. Since then Dr. Gore has been constantly engaged in research, and his contributions to scientific knowledge have been many and various. He has discovered the compound known as explosive antimony, and has probably made deeper research into the properties of antimony than any other scientist. He discovered the process of rendering phosphorus amorphous—a discovery which made safety matches possible. He investigated the subject of thermo-electricity, and elicited much that was new; while on the question of electro-deposition, his deep researches and long study have made him, perhaps, the greatest English authority. His book on the subject is a text-book. He has thoroughly investigated the theories of diamond-making, and has demonstrated scientifically its impracticability; and for years he has been engaged in deep research into the properties of fluorine, the mysterious fluid which has so long puzzled the chemists. This liquid or gas, whichever it is, is so corrosive that the investigation of its properties is attended with the utmost danger. Two chemists who have endeavoured to separate it have lost their lives in the attempt—so that Dr. Gore's multitudinous experiments in this direction have not been unattended by excitement. He possesses, perhaps, the only bottle of undiluted hydrofluoric acid in the world—a bottle which would be quite sufficient to poison the whole of the inhabitants of Birmingham. These fluorine investigations have earned him a high reputation in the scientific world. Space does not permit the enumeration of one-hundredth part of his contributions to scientific knowledge. Some day, perhaps, his investigations may lead him to a discovery that may revolutionise the world. There are scientific Americas remaining; and since



Dr. George Gore, F.R.S., is the one Englishman who lives for the purpose of original scientific discovery, he is more likely than any amongst us to be the scientific Columbus.

On Monday, December 7, Lewis's premises were closed in consequence of the death of Mr. David Lewis, of Liverpool, the founder of the firm.

A visitor paid to the Technical School (in connection with the Birmingham Board School) showed us in the lecture theatre a lesson being expounded in chemistry by a highly-qualified science master. When the lecture was finished the boys adjourned to a well-fitted laboratory, where they experimented for themselves on the subject of the lesson. The laboratory is a most interesting sight when the boys are engaged in this, to them, the most delightful branch of their studies; they do their work with an interest and a care which shows how much pleasure such a study as chemistry may be made to afford. Boys living at a distance are supplied with dinners at a cost of 2d. each, and the school fees are 3d. a week!

At the monthly meeting of the Midland Counties Chemists' Association, on November 25, a paper was read by Mr. John Barclay (son of the President, Mr. Thomas Barclay, who occupied the chair) entitled, "A few Notes on French Pharmacy." From twenty-five to thirty members were present, including two ladies. The paper is printed on another page. Mr. Hutton, who has recently commenced business here (as noted in your last issue), having been engaged at an Anglo-French Pharmacy, related his experiences abroad. Other gentlemen took part in the discussion, and a vote of thanks to the lecturer was carried unanimously.

#### GLOUCESTER.

**COMPETITION.**—In common with most other large towns, competition has been making itself severely felt in Gloucester and district. For some time past the public have had the benefit of reduced prices through the instrumentality of the grocers, and patents have been sold at the now general price of 1s. for 1s. 1½d. articles; but this was eclipsed by a new chemist (Mr. Hohhes), who has made a "special announcement" that all patent and proprietary medicines, perfumes, household requisites, dietary articles for invalids, surgical appliances, &c., would be supplied by him, as usual, at the lowest co-operative cash prices, and that prescriptions, drugs, chemicals, and pharmaceutical preparations would also be included in the reduced tariff. He considered this would be a greater boon to the public than the reduction in price of a few leading patents. Not to be outdone by the new-comer, the cutting-grocers quickly announced that they were still the cheapest house for patents, and that they would reduce some of their prices to 10d. and Holloway's pills to 9½d., and further added that all their patents were genuine and bore the Government stamp. This state of affairs caused a meeting of the leading chemists to consider what their action should be, and it was finally decided to issue the subjoined notice:—

#### TO THE PUBLIC.

SEEING the necessity of conforming to the requirements of the times, we have resolved to supply the Public with all the leading PATENT MEDICINES and PROPRIETARY ARTICLES at the same prices as charged by the chief London Stores.

Prices will be Regulated from time to time, according to circumstances; and we take this opportunity of saying that, all things being equal, WE WILL NOT BE UNDERSOLD.

From a Chemist and Druggist's knowledge of this branch of trade, the Public will see the importance of getting their supplies only from those who understand the difference between the GENUINE and SPURIOUS articles; and, therefore, we come forward with confidence, to ask them to give their support only to those whose legitimate business it is to deal in such articles.

TOM. BEACH,	G. W. POLDEN,
A. A. CURTIS,	W. STAFFORD,
E. G. HUGHES,	J. W. TRIGG,
T. J. HUNT,	JOS. WARD.

Nothing daunted, the next day brought the following paragraph in the local press:—

How strange! We lead, others follow. J. G. Vicker & Co. still do the largest trade in Genuine Patent Medicines, Proprietary Articles, Druggists' Sundries, Perfumes, &c. Why? Because they were the first to reduce the exorbitant prices usually charged.

The fictitiously-signed letter printed below has been published as having been received by Mr. Vicker soon after he commenced his cutting career:—

SIR,—We, the chemists of this city, beg to inform you if you persist in underselling us in patents we too will make a considerable alteration in our present prices, in fact we will sell at cost and see if you can out do that. So just mind what your about Mr. Hobbs, or we will make it hot for you. I hear that some of the grocers are contemplating taking this matter up, so mind what you are up to, sir.

Yours, &c., J. SPOOKES.

Mr. A. E. Hohhes, late of Margate, has succeeded to the business of Mr. Trotman (late Willis), at 72 Northgate Street, Gloucester.

Through the death of Mr. J. Medd, chemist, Gloucester, this old-established business is to be disposed of.

The City and County Drug Company, carried on at 389 High Street, Cheltenham, have made great headway since their opening some eighteen months ago, in spite of the close competition of the grocery stores in patents, and they have established a branch at 107 Old Town Street, and 16 Whimble Street, Plymouth.

The business carried on by the late Mr. Joseph Walker a 124 High Street, Tewkesbury, will be continued under efficient management on behalf of the widow and children.

#### KENDAL.

**WALL-CASE ADVERTISING.**—Messrs. Severs & Bateson were sued in the County Court last month by Messrs. Hall & Smith, who had introduced wall-case advertising in the town, for two years' advertising. The person who obtained the order said they had 550 of these cases throughout the country, the payment by advertisers whose names and addresses were enclosed in the case being 50s. a year each. Defendants alleged that the representations made to them had not been carried out. There was to be a barometer and thermometer in the case to attract attention, and defendants said the agent had told them the barometer would be set daily. This had not been done, and it was denied by plaintiffs. Defendants also said that it was promised that no other druggist would appear in the case. This promise also was denied, and neither of the alleged representations were in the signed contract. Mr. Wilson, for defendants, proposed to prove what was said by two witnesses. His Honour: If you prove it by twenty witnesses I shall not hear it. This agreement is binding, and any one who signs it should know what it contains and what he has to expect. Mr. Wilson: And we cannot go beyond that to what was promised? His Honour: It would be a very dangerous principle if you could. Verdict for plaintiffs.

#### PLYMOUTH.

**COMPETITION.**—The County Co-operative Drug Company, of Cheltenham (which does not appear to be a limited company), have opened a branch business at 107 Old Town Street and 16 Whimble Street, Plymouth, being a corner shop in the centre of the town, and adjoining an old-established firm of chemists. The manager is a Mr. James Stewart, and a price-list on the usual scale has been sent by post to the inhabitants of the town and neighbourhood.

#### SHEFFIELD AND DISTRICT.

##### (Special Correspondence.)

Mr. W. J. Marsden, respirator manufacturer, Sheffield, is dead. He was an excellent workman, and had secured several awards in exhibition competition, but was eccentric and had cramped notions of doing business. He will be missed by many chemists in various parts of the country.

Mr. Henry Horncastle, chemist, 154 Cemetery Road, received severe injuries when leaving a political meeting on the 15th ult. He was making his way from the meeting, and on reaching the exit of the hall was pushed down the steps, and sustained a fracture and dislocation of the right thigh. At the termination of the meeting the chairman, Alderman Gainsford, and G. Wilson, J.P., called to inquire of Mr. Horncastle's condition. Mr. Horncastle is 68 years of age, and is the oldest chemist in business in Sheffield.



The chemical works and tar and oil distillery, situate on the banks of the Don, in Bridge Street, Attercliffe, are advertised for sale by auction, by order of the mortgagees, unless disposed of privately. Formerly they were occupied by Mr. Holliday, recently by Messrs. Harrison & Wilcock.

Mr. D. A. Aitchison, veterinary surgeon, Rotherham (formerly of Sheffield and at one time on the Town Council) was poisoned on November 20 by taking morphia to produce sleep and relieve pain. He suffered from heart-disease, and for some time had been in a weakly state. He had been taking morphia for about six months. On this occasion he had only taken his ordinary dose, but it was too much for him in his altered and debilitated condition.

On a farm, near Retford, several barrow-loads of turkeys, guinea-fowls, and other poultry have been gathered up dead, through having poisoned corn given them in mistake. A sow and pigs which ate two of the fowls were also poisoned.

No one acquainted with the hon. secretary of the Sheffield Pharmaceutical and Chemical Society would suspect him of gaining entrance to a medical lecture to be delivered to ladies only. It must have been a very foggy advertisement which misled such a shrewd, close observer, to journey to the Women's Hospital on such an errand. His versatility would stand him in good need when the incident came to a crisis, and doubtless enable him to make the best of his position before taking his exit as requested. How inconsiderate of the Doctor to deprive his fair audience of the presence of one member of the opposite sex, and that member, in addition to being a chemist, a bachelor, who had just made himself comfortable at home with his surroundings!

The old-established chemist and druggist's shop, with dwelling-house thereto, 137 West Street, was offered for sale by auction on December 1, and withdrawn at 1,550/. Subsequently it was sold to the tenant, Mr. Morrison, for the sum named.

It is surprising that some of the historical wholesale drug-houses have not opened a branch establishment in Sheffield. It would supply a great want to the chemists of the capital of Hallamshire and that enormously-peopled part of the kingdom the South-West Riding of Yorks. Other provincial towns of greater and less magnitude have each one or more wholesale houses. Chemists in these parts can appreciate the advantages of their more-favoured brethren in being able to have a frequent renewal of stock by keeping it all in the shop-bottles and cases, instead of having capital locked up in their own warehouses and cellars, and stock not improving. Mr. G. S. W. Newsholme, Market Place, has taken large premises and opened a wholesale department. His monthly price-list shows that other houses will have to reckon with him as a keen competitor.

There is some talk of the annual gathering of Sheffield chemists taking the form of a conversazione, instead of a dinner, to be held in January next. Some years ago a most successful conversazione was held under the auspices of the local Association.

It is a long cry to the May elections of the Pharmaceutical Society. A hint in these columns before the electioneering excitement subsides may remind the chemists of the South-West and East Riding of Yorkshire and neighbouring towns of steps taken last April which proved abortive, owing to the question being taken up too late. To obtain the advantage of the districts mentioned being represented by a suitable and resident representative on the Pharmaceutical Council, correspondence was entered into with the leading chemists and secretaries of associations in various towns. From York, Leeds, Bradford, Halifax, &c., replies were received giving a general approval to the scheme; that some steps should be taken to select the most eligible candidate, and that there should be concerted action taken to secure his return. If vigorous action in this direction could be adopted and followed by the pharmaceutical electorate in different parts of the country, it would produce a better reflex of the feeling of the constituency at the Council Chamber than is at present the case, in consequence of the apathy shown both in adopting candidates and in recording votes. It is to be hoped the progress made will be maintained, and that the numerous preliminaries and difficulties which have to be encountered will be met with in time to test the strength and feeling of such an important district.

## SCOTLAND.

## DUNDEE.

Mr. David Mackay, chemist and druggist, Scouringburn, has purchased the business of the late Mr. J. M. Lyon. Messrs. Clark & Pinkerton, Edinburgh, acted as valuers on behalf of both parties.

Professor Carnelly, of the University College, as President of the Naturalists' Society, is doing admirable service in developing the chemical and physical section. He is ably seconded by the secretary, Mr. F. W. Young, F.R.S.E., science teacher at the High School. Some years ago Mr. Young's name figured in our "Students' Column" as a prize-taker.

## EDINBURGH.

## INTERNATIONAL EXHIBITION OF INDUSTRY, SCIENCE, AND ART, EDINBURGH, 1886.

THIS exhibition promises to be one of unusual interest, and its situation in one of the most accessible spots of the Scottish metropolis is certain to help towards its success. The financial success of the Forestry Exhibition of 1884 bespeaks for the Industries Exhibition an equal share of public support. The Town Council of Edinburgh has granted the use of the West Meadows, immediately to the south of the Royal Infirmary, and on this an iron and wood structure is being built, from special prize designs. The exhibition will be opened to the public in the beginning of May. An "Old Edinburgh" street will be reproduced with a faithful adherence to peculiar architectural features. A prominent feature in this department will be the Netherbow, with its lofty tower and spire, the concrete foundations for which have been prepared. The work will be completed in ten weeks, when the shops forming the street will be let for the time of the exhibition, the tenants coming under an obligation to attire their attendants in the costumes of the period.

The exhibits will be arranged under fifteen classes, of which the following are more particularly interesting to our readers:—

Class II.—Pottery, glass, and kindred industries, including porcelain, flint and bottle-glass goods.

Class III.—Chemistry, pharmacy, and food.

Class XI.—Scientific appliances, &c.

Class XII.—Educational appliances.

Under sea industries (Class XIII.) isinglass, kelp, fish-glue, &c., may be exhibited.

An influential executive committee has been formed, and Mr. James Marchbank, S.S.C., 29 Hanover Street, Edinburgh, has been appointed secretary. Mr. Marchbank will supply all information. The exhibition will be open from May 4 to October 30, 1886.

EDINBURGH CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.—The third meeting of this Association was held on November 18, when the President (Mr. J. R. Hill) read the second of the series of papers on the new Pharmacopœia. This was devoted to the botany and materia medica of the work. Mr. Hill gave it as his opinion that this part of the British Pharmacopœia is by far its most satisfactory feature, its clearness, accuracy of detail, and literary style being such as to command admiration.—The next meeting was held on the 2nd inst., when a large number of members and their friends attended. On this occasion there was a good exhibition of chemicals, drugs, and pharmaceutical preparations, lent by Messrs. Gardner & Ainslie, T. & H. Smith & Co., and J. F. MacFarlan & Co. The President also showed some vegetable curiosities from Trinidad; and another feature of the evening was a microscopic demonstration by Mr. Thomas Hart, during which his Swift's binocular received a large share of attention. Mr. MacEwan described the exhibits. Afterwards, Mr. R. L. Bolton, an apprentice member of the association, read an essay on "Pill Excipients;" Mr. Thomas Stephenson gave a brief description of "Traube's artificial vegetable cell;" and Mr. Peter Boa a communication on *Vinum Ipecacuanhae*. In this Mr. Boa stated the results of experiments, still in progress, on the British Pharmacopœia process and modifications of it, from which it appeared that further improvement may still be made. A full account he reserved for a future occasion.

MR. WELCH'S SEQUESTRATION.—On October 17 Mr. Welch was examined on his sequestration before Sheriff Rutherford.



The state of affairs submitted showed liabilities to be 393*l.* 1*s.* 11*d.*, and assets 151*l.* The deficiency will be further increased by legal expensos. The failure has been caused by transactions outside pharmacy. Much sympathy is felt for Mr. Welch.

Messrs. Clark & Pinkerton have purchased the proprietary rights, &c., of Erskine's Prahee Sugar, a neuralgia specific, which has had considerable sale for a quarter of a century.

Messrs. James Robertson & Co., George Street, have issued to the medical practitioners of Edinburgh and district a smartly got-up list of "gelatine capsuled pills and other special preparations." They claim for their pills that they are "the first of British manufacture." The coating apparatus is the invention of the sole partner (Mr. Thompson), its special feature being the large number of pills which may be coated at one time. With the list of pills a circular in reference to *Strophanthus hispidus* is issued. This drug we notice in another column.

Mr. McCulloch, whose expected recovery we noticed in our last issue, died at his residence, West Maitland Street, Edinburgh, on October 23. He leaves a widow and five children. The deceased was a well-known Edinburgh chemist. He commenced business, about thirty years ago, in South Bridge (opposite the University), and later purchased the business of Mr. Anderson in West Maitland Street. These he carried on together until five years ago, when he sold the South Bridge property, and devoted his whole time to the west-end shop, whose importance has grown with the migration of good families westwards. It is understood that the business will now be carried on on behalf of the widow and family.

#### GLASGOW.

A recent *Glasgow Herald* contains the following suggestive advertisement:—

**MEDICAL.**—Address Wanted of Medical Man willing to Advise Druggist in Difficult Cases and grant Certificates; district west of Kelvin. State terms per consultation.—5253, Herald Office.

It shows some conscientiousness on the part of the druggist to recognise that any cases are difficult to him.

The cutting of patents goes merrily on in Glasgow, where the chemists, so far, are certainly not jubilant over the increase of trade which they have secured by the reduction. With diminishing profits, and possibly increasing family calls, the chemist may find consolation in considering the low prices which rule in other trades. When 1 lb. of meat, 4 lbs. of bread, and 14 lbs. of potatoes may be purchased for 1*s.* the necessaries of life are certainly not costly. Nor are luxuries expensive in this northern city—grapes at 2*d.*, and sweets, "mixed flavours," at 3*d.* per lb. cannot hurt the consumers' pocket much; and, if he survives this fivepennyworth, he may, in the same street, procure a watch, "warranted," for 7*s.* 6*d.*, or a good clock for 2*s.* 11½*d.*

#### STOWMARKET.

**ELECTION RIOT.**—After the declaration of the poll for the Stowmarket division of Suffolk, on November 28, an election riot occurred here, in which considerable damage was caused. During the night the shop of Mr. Gostling, chemist, who on the Liberal side had taken a prominent part in the election, was attacked by the rioters; the shutters were taken down and two plate-glass windows and a 12-gallon show-bottle smashed, the contents of the latter damaging a large quantity of stock. The damage is estimated at 50*l.* Mr. Gostling has identified one of the rioters. The dwelling-house of Mr. Wilson, chemist, also suffered.

#### YORK.

**ADMINISTRATION OF LINIMENT FOR MEDICINE.**—An inquest was held at York last week on the body of Francis Lawrence Puckering, twelve months old, son of Walter Wilson Puckering, druggist's assistant, residing in Lowther Street. The evidence showed that the child had suffered from bronchitis and pneumonia, and had been attended by Mr. Bryson, surgeon, who prescribed a cough mixture and liniment. Both were made up by the child's father, and put

into bottles very much alike in size. The bottle containing the liniment was labelled "Poison." Mrs. Puckering gave the child half a spoonful of the liniment. She immediately discovered her mistake, and as the child had not swallowed the liquid she managed to get it out of its mouth by holding it forward. Some time afterwards the father gave it an emetic, and after the doctor had seen the child the only symptom of poisoning—dilation of the pupil of the eye—disappeared, and the child became better. It afterwards became very ill, and died next day. At the inquest, Dr. Bryson said that in his opinion the child had died from bronchitis and pneumonia. He did not think the liniment given by mistake had anything to do with the death, but he thought that the disturbing of the child by giving it an emetic might have slightly aggravated the bronchitis. The jury returned a verdict in accordance with the medical testimony.

## PHARMACY IN AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

MELBOURNE, VICTORIA, Oct. 28.

#### PARLIAMENTARY.

**T**HE Bill to provide for the registration of dentists, introduced by Dr. Rose and Mr. Bosisto, about which I wrote some time since, came before Parliament on the 21st inst., and passed its first reading; but, in view of the conflicting interests dealt with by the Bill, it was suggested that it would be well to refer it to a Select Committee. The Attorney-General concurred with the suggestion, which was adopted.

The Bill is framed much on the lines of the English Dental Act. It provides for the appointment by the Governor in Council of a Dental Board, to be composed of medical practitioners and dentists registered under the Act.

It protects the titles "dentist," "dental practitioner," "dental surgeon," &c., but provides for the registration of such persons as have been "continuously and exclusively engaged in the practice of dental surgery or dentistry in Victoria for at least three years, if such period shall not have expired for more than one year." Registration, or title to registration, in the United Kingdom, and certain colonial and foreign certificates, are also sufficient. The last clause provides that "nothing in this Act shall be deemed or taken to in any way affect any of the rights or privileges of chemists and druggists, or the customary practice by any persons lawfully carrying on the practice, trade, or business of chemists or druggists, of any art, act, or thing pertaining to the practice of dental surgery or dentistry."

I understand that the Bill is likely to be considerably amended in Committee, as no provision is made for the registration of pharmaceutical chemists who have been practising dentistry before the passing of the Act, and the Pharmaceutical Society will have quite sufficient influence in Parliament to carry this or any other amendment they may deem necessary.

I have nothing new to tell you about the amended Pharmacy Act, it not having come again before Parliament.

#### THE EUCALYPTUS.

Mr. Bosisto recently read an interesting paper at a meeting of the Medical Society on the "Materia Medica of the Eucalyptus." Mr. Bosisto is to be congratulated on the exhaustive manner in which he dealt with the subject. I understand the paper will shortly be available for publication.

While on the subject of the eucalyptus, I may mention an interesting ceremony which is likely to take place shortly, when the Governor and the members of both houses of Parliament will visit the College of Pharmacy to inspect the exhibits of Australian vegetation prepared by Mr. Bosisto for the Indian and Colonial Exhibition to be held next year in London.



## PROFESSOR KIRKLAND.

Mr. J. D. Kirkland, late Professor of Chemistry and Metallurgy at the Melbourne University, died on the 22nd instant.

Professor Kirkland had been connected with the Medical School of the University since its foundation—first as assistant to the late Dr. McAdam, then as lecturer upon, and subsequently Professor of, Chemistry.

## VALUE OF A VICTORIAN BUSINESS.

The generally satisfactory state of trade is exemplified in the recent sale by tender of a small suburban business at Port Melbourne, the gross takings of which were about 1,600*l.* a year. The stock and fittings amounted to about 800*l.*, and there was about 150*l.* of book debts. The tenders varied from 450*l.* to 2,005*l.*, at which price the concern was sold.

## PROPOSED PHARMACEUTICAL CONFERENCE.

It is to be hoped that the attempt now being made to arrange for an Intercolonial Pharmaceutical Conference during the year 1886 may be successful. At the last meeting of the Pharmaceutical Society Mr. H. T. Tomsitt submitted the following motion, which was unanimously agreed to—

That, in order to bring about uniformity in the educational qualification required of pharmaceutical chemists in the various Australasian Colonies, and to promote reciprocity in the recognition of certificates, and further to discuss any matter that may be brought forward on which it is considered that joint legislation or action may be desirable, a Conference, consisting of delegates from each colony, be invited to assemble in Melbourne in the month of October, 1886, on a date to be fixed by the Council. And that the Council be requested to draft a syllabus of such subjects as they may propose to submit for discussion by the said Conference, and forward copies of the same to the various bodies expected to be represented, requesting each to intimate any additional matter which it may wish to include.

## PHARMACY IN INDIA.

(Special Correspondence.)

**M**R. D. S. KEMP, Ph.C., of the firm of D. S. Kemp & Co. (Limited), pharmaceutical chemists and general merchants, Bombay, is retiring from the managership of the business. At a meeting of shareholders he was very heartily thanked for the manner in which he had conducted the business since it was formed into a limited liability concern. Mr. Kemp is universally liked by those who know him, and the firm are widely known and respected.

A fatal dispensing accident happened last month at the common gaol, Bombay, by which four prisoners lost their lives. They were being treated for fever with cinchonine, but the hospital assistant, Vithal Lingoo by name, administered strychnine in mistake. All four died, and a fifth, who had taken a similar dose, only just escaped a similar fate. The hospital assistant found out his mistake too late for Dr. Hunter, the gaol surgeon, to be of use. At the inquest the superintendent of the gaol admitted that the assistant had only been attached to the gaol for about ten months. It is very surprising that there are not more cases of accidental poisoning when one considers the uneducated class of men these hospital assistants or compounders are.

The military expedition to Burmah enlivened the "stations" with preparations. Such moments are temporarily good for trade, but are really a bane, for the officer drawn from his cantonment is no longer an effective customer. His "Eau de Cologne," "Pomade Hongroise," his monthly speculation in a new tooth-brush, are no longer the object of a visit to the English pharmacy.

The enterprise of THE CHEMIST AND DRUGGIST in Australia is praised by its friends here. "Thoroughly deserving success," they say. Fortunate Australia, to secure so able a journal as its own!

## PATENT MEDICINE STAMPS.

**T**HE chief Act of Parliament regulating patent medicines is 52 Geo. 3, cap. 150. It makes provisions concerning the stamps or licences and penalties for infringements, and then gives, in a schedule, a long list of medicines which were at that date in vogue, and which were to be regarded as subject to the stamp duty. To this list is added the following paragraph:—

"And also all other pills, powders, lozenges, tinctures, potions, cordials, clectuaries, plaisters, unguents, salves, ointments, drops, lotions, oils, spirits, medicated herbs and waters, chemical and officinal preparations whatsoever, to be used or applied externally or internally as medicines or medicaments for the prevention, cure, or relief of any disorder or complaint incident to or in anywise affecting the human body, made, prepared, uttered, vended, or exposed to sale by any person or persons whatsoever, wherein the person making, preparing, uttering, vending, or exposing to sale the same hath, or claims to have any occult secret or art for the making or preparing the same, or hath or claims to have any exclusive right or title to the making or preparing the same, or which have at any time heretofore been, now are, or shall hereafter be prepared, uttered, vended, or exposed to sale, under the authority of any letters patent under the great seal, or which have at any time heretofore been, now are, or shall hereafter be by any public notice or advertisement, or by any written or printed papers or handbills, or by any label or words written or printed, affixed to or delivered with any packet, box, bottle, phial, or other inclosure containing the same, held out or recommended to the public by the makers, venders, or proprietors thereof as nostrums or proprietary medicines, or as specifics, or as beneficial to the prevention, cure, or relief of any distemper, malady, ailment, disorder, or complaint incident to or in anywise affecting the human body."

In the same Act "all medicinal drugs whatsoever which shall be uttered or vended entire without any mixture or composition with any other drug or ingredient whatsoever" are exempted from the duty.

In subsequent Acts the following exemptions have been declared:—

"55 Geo. 3, c. 184. July 11, 1815—Sect. 54.—The duties and licences shall not extend to ginger and peppermint lozenges; nor to any other article of confectionary, unless sold as medicines, or as beneficial for the prevention, cure, or relief of any distemper, malady, ailment, or disorder incident to the human body."

"3 & 4 Will. 4, c. 97. August 29, 1833.—Sect. 30. So much of the schedule to the 52 Geo. 3, c. 150, is hereby repealed as is contained in the following words, viz.:—'Waters, viz.:—All artificial mineral waters, and all waters impregnated with soda, or mineral alkali, or with carbonic acid gas; and all compositions in a liquid or solid state, to be used for the purpose of making or compounding any of the said waters.'"

We print these particulars on the request of several correspondents, and in consequence of a general interest which has been aroused in regard to the law.

ASPHALT PAPER is likely to become of great use in many ways. In thin sheets it is useful for wrapping silks or other fabrics that need protection from moisture, for lining cases, or packing-boxes for pianos, &c., or rolled up into pipes for conveying water. Asphalt tubes are only one-fifth the weight of iron, will not rust, and are quite tough and strong. The tubes are simply sheets of paper of a peculiar quality dipped in melted asphalt, and then rolled upon a cylinder. A machine for preparing the asphalt wrapping-paper consists of a hollow cylinder, heated by steam, and a wedge-shaped box containing the hot asphalt. The box has a narrow slit the width of the paper, and as the paper passes a thin layer of asphalt is distributed on the paper just before it passes the cylinder.



## SOME NEW MEMBERS OF PARLIAMENT.

**MR. OCTAVIUS VAUGHAN MORGAN**, the first representative of the new borough of Battersea, has a special connection with pharmacy through this journal (*THE CHEMIST AND DRUGGIST*), of which he was one of the founders, and is still one of the proprietors.

The firm of Morgan Brothers, in which Mr. O. V. Morgan was one of the younger partners, was well known to chemists and druggists all over the country some twenty years since. Their business gradually developed into an exclusively colonial and foreign one, and for many years their relations with many of the largest buyers abroad, as merchants and bankers, were very extensive. The firm had founded in 1855 the well-known manufactory of plumbago crucibles at Battersea, now known as the Morgan Crucible Company. At that date crucibles were almost exclusively imported from Germany. Now the whole world buys crucibles from Battersea. Mr. O. V. Morgan has taken a prominent part in the cultivation of the foreign business of the company. He has repeatedly travelled through Europe and America, and has made several extensive business tours in the Far East, in the Australasian Colonies, in South America, and in the West Indies. To many of the colonial subscribers to this journal he is known personally, and to his efforts *THE CHEMIST AND DRUGGIST* owes much of its extra-British circulation.

At Battersea Mr. Morgan has always taken a warm interest in movements calculated to assist the progress of the working-classes, and has given active support and aid to most of the religious and philanthropic associations in the borough. He is a magistrate for the county of Surrey, a Fellow of the Statistical Society, of the Royal Colonial Institute, and of the Imperial Federation League. His experience as a magistrate induced him to become a total abstainer, and his wide acquaintance with, and careful studies of, men and business through the world, qualify him to render exceptionally good service as a member of Parliament.

Mr. John Tomlinson Brunner, head of the firm of Brunner, Mond & Co. (Limited), the company which, by the adoption of the ammonia process in this country, have achieved such a signal success in the alkali trade at a time of exceptional adversity, has been elected for the Northwich division of Cheshire in the Liberal interest. His father, the Rev. John Brunner, came from Zurich to England in 1832, and the family name is recorded in the trade guilds and burgess rolls of Zurich as far back as 1292. His father was brought up for the Lutheran Church, but was never ordained, having become in theological conviction a Unitarian. His first occupation in England was that of assistant to Professor Voëlcker, who had a large private school at Everton. He became Professor Voëlcker's partner, and subsequently established a private school on his own account at St. George's House, Everton. Amongst his pupils were Mr. W. Rathbone, M.P. for Carnarvonshire; Sir Bernhard Samuelson, M.P. for Banbury; Right Hon. James Stansfeld, M.P. for Halifax; Mr. Mitchell Henry, M.P. for Glasgow; and Sir Charles Tennant, late M.P. for Glasgow. In 1872 Mr. Brunner, sen., retired, and died in 1883, within a month of completing his 83rd year. Mr. J. T. Brunner was born in 1842, and was educated at his father's school. In 1857 he entered mercantile life with the Liverpool house of the firm of Joshua Scholefield & Sons, of Birmingham. In 1861 he removed to Widnes, and entered the employment of the late Mr. Hutchinson. In 1872, in company with Mr. Ludwig Mond, he came into Cheshire, and thoroughly explored the salt district with the object of finding a site for an alkali-works. In partnership with Mr. Mond and Mr. Charles Menzies Holland Mr. Brunner purchased the Winnington property from Lord Stanley of Alderley. In 1873 working began. The succeeding year was one of constant disaster, but in 1875 there set in a tide of prosperity which hitherto has experienced no ebb. In 1881 the business was transferred to a limited liability company, under the title of "Brunner, Mond & Co. (Limited)." The company own a large number of patents, and the establishment at Winnington is now the largest of the kind in the world. Mr. Brunner has always taken great interest in public affairs, and

especially in educational institutions. He built and furnished the Free Public Library at Northwich, at a cost of between 6,000*l.* and 7,000*l.*, and presented the whole to the town as a free gift. This institution was opened last July by the Duke of Westminster. Many other of the social and religious organisations of the neighbourhood have shared in Mr. Brunner's prosperity. He is one of the magistrates for Cheshire, and will be regarded as a special representative of the chemical industry in Parliament.

Mr. Edward Rider Cook, Liberal, has been elected for the Northern division of West Ham, by 4,219 votes against 3,500 polled by his Conservative opponent, Mr. Forrest Fulton. He is the principal of the East London Soapworks at Bow, is concerned in some charcoal-manure works, and is well known among chemical manufacturers. He is at present the honorary treasurer of the Society of Chemical Industry. Mr. Cook is one of those numerous candidates at this election who have stepped from local boards to the Imperial Parliament. He is the representative of Poplar on the Metropolitan Board of Works, and has been a prominent man thereon. He is an out-and-out Londoner; was educated at the City of London School and University College, where he took various prizes in chemistry. He is forty-nine years old, and has been twice married.

Sir Henry Roscoe, the single Liberal member for Manchester, defeated Dr. P. Royle by 3,791 votes against 3,121. No doubt Sir Henry Roscoe will be regarded in the new Parliament as fully as the representative of chemistry and of science generally as of South Manchester. He and his works on chemistry are too well known to need recapitulation here. He has held the chief offices in all the societies of chemistry, and all the works of which he is wholly or partially the author are authoritative. He has occupied the chair of chemistry in the Owens College, Manchester, since 1857. In the movement for the establishment of the Victoria University he took an active part, and he inaugurated and successfully maintained the series of science lectures for the people which have been given in Manchester for eleven years past. The honour of knighthood was conferred upon him for the services he rendered on the recent Commission on Technical Education. Sir Henry was born in London in January, 1833.

Mr. James Horner Haslett, who, in the Conservative interest, defeated Mr. Sexton for West Belfast, is a son of the Rev. Henry Haslett, Presbyterian minister at Castlereagh, County Down. He was born in 1832, and educated at Knock National School and the Royal Academical Institution, Belfast. After serving an apprenticeship in the old-established firm of William Dobbin & Co., wholesale and retail druggists, of Belfast, he early learned from the head of that firm those business habits which in later years have produced such satisfactory results. Joining his brother in partnership, they commenced business in North Street under the style of "J. & J. Haslett," as druggists and general merchants. Business prospering, the firm found it necessary some few years since to re-build their premises, erecting a handsome warehouse in place of the former small building. Mr. Haslett is an alderman and an active member of the Town Council, showing special aptitude for financial subjects. He is also a magistrate for the borough of Belfast.

Mr. James Bigwood, returned as Conservative member for Eastern Finsbury by 2,055 votes against 2,035 polled by his Radical competitor, Mr. J. Rowlands, is at the head of the firm of Champion & Co., mustard manufacturers, in the City Road, and it is his boast that for a number of years he has never been out of Finsbury for more than a week at a time. He was educated at St. John's College, Cambridge, and took his M.A. degree in 1865.

Among medical men elected may be named Sir Gayer Hunter for Central Hackney; Dr. Balthazar Foster for Chester; Mr. Mitchell Henry and Dr. C. Cameron for divisions of Glasgow; Mr. K. I. O'Doherty, F.R.C.S.I., L.K.Q.C.P.I., for North Meath; Mr. J. Dillon, L.R.C.S.I., for East Mayo; Mr. Vanderbyl for Portsmouth; Mr. R. B. Finlay,





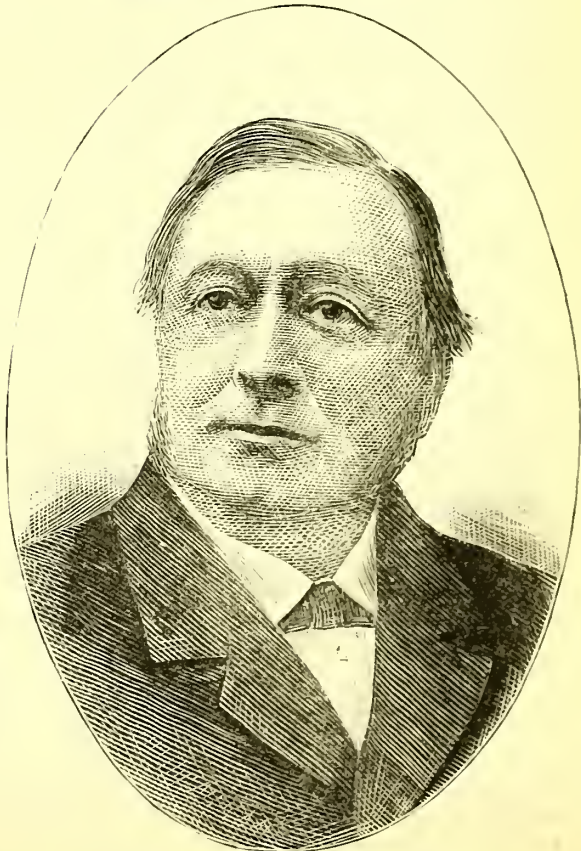
MR. J. T. BRUNNER, M.P. (Northwich Division of Cheshire).



MR. O. V. MORGAN, M.P. (Battersea).



MR. E. RIDER COOK, M.P. (Northern Division of West Ham).



SIR H. E. ROSCOE, M.P. (South Manchester).



M.D., Q.C., for Inverness Burghs; Dr. Farquharson for West Aberdeenshire; Sir J. J. Trevor Lawrence, who defeated another medical candidate, Dr. Alfred Carpenter, for Surrey (Reigate division); Dr. R. Macdonald for Ross and Cromarty shires; Mr. G. A. Pilkington, M.R.C.S., L.S.A., for the Southport division of Lancashire; Mr. J. E. Kenny, L.R.C.P. & S. Ed., for South Cork; and Mr. C. R. D. Tanner, L.R.C.S. and R.C.P.I., for Mid Cork. Of these, Mr. Mitchell Henry has long retired from professional work; Mr. Vanderbyl, who is an M.D. Edinburgh, retired from the practice of medicine in 1858, and is now an Australian merchant and banker; while Mr. Finlay, who also took the M.D. degree of Edinburgh, is now a distinguished member of the legal profession. Dr. Herbert Watney has been rejected by Greenwich; Mr. Ernest Hart by Mile-end; Dr. P. Royle at Manchester; Dr. Gordon Hogg in Middlesex (Ealing division); Dr. Alfred Carpenter, as intimated above, by the Reigate division of Surrey; and Dr. Danford Thomas by West Islington. Dr. Lyons, who was a candidate for one of the divisions of Dublin, had to retire owing to an informality in his nomination-paper.

### PEPSINE:

AS IT IS, AND AS IT MIGHT BE, PRODUCED.

OF all the processes with which the revisers of the Pharmacopœia had to deal, none, it is rumoured, occasioned them greater anxiety than that for the preparation of pepsine.

The official process of 1867 sanctioned, as is well known, the use of the stomachs of the sheep, the calf, and the pig, but the experience of more than half a generation of dyspeptics has established the fact that the pepsine provided by the last-mentioned animal is as much superior to that of his co-producers as is a Maxim gun to a flint-lock blunderbuss.

The cultivation of pigs for their pepsine has consequently become an established industry, and it was a singular oversight on the part of a late President of the British Pharmaceutical Conference that he omitted to demonstrate to the urban pharmacist the alternative value of a well-regulated pig-sty as a set-off to the medicinal-plant-growing acres of his rural *confreire*.

improved method which has hitherto not been made public, may be of some interest.

The first sketch illustrates the first important step in the process which has commended itself to the editors of the Pharmacopœia. It will be observed that the artist has seized the moment when the pig is about to renounce his individuality.

The next illustration affords a peep into the laboratory after the post-mortem is concluded. The gentleman so diligently pursuing his avocation at the bench is armed with a "blunt knife, or other suitable instrument" (an old fire-shovel answers best), by means of which and "some pressure" he is laboriously carrying out the directions of the Pharmacopœia. The "viscid pulp" which the attractive-looking "mucous membrane" is thus made to yield is being



carried off in buckets to the drying-room, whence it will emerge to-morrow in more or less colourless flakes of a bladdery odour, to be pulverised and sifted.

As thus obtained pepsine is chiefly remarkable for its extraordinary price. A good-sized and well-fasted pig will yield on an average, under careful treatment, half an ounce of dry pepsine. It appears to be the custom of manufacturers to consider the monetary value of this half ounce of product as about equivalent to the original cost of the particular pig from which it is obtained. It is true that the carcase of the pig is in no way injured by the abstraction of the pepsine, and that even the much-scraped residual stomach is a marketable commodity under the alluring appellation of "tripe"; but from a manufacturer's point of view these are by-products, and as such cannot be allowed to influence the cost of the pepsine as estimated on the basis already indicated.

It is scarcely necessary to point out that, in making a choice of processes, the compilers of the Pharmacopœia do not allow themselves to be influenced by considerations of economy. Indeed, in this respect they rival the simplicity of the still softer sex, with whom, as is well known, "the higher the price the better the quality" is—even under the most contradictory circumstances—a fundamental axiom.

Some individuals, whose mission in life is not to compile Pharmacopœias, seem to consider that the official process for pepsine is capable of improvement.

An outline of one of the schemes thus irreverently devised has been placed at our disposal. As its salient features form

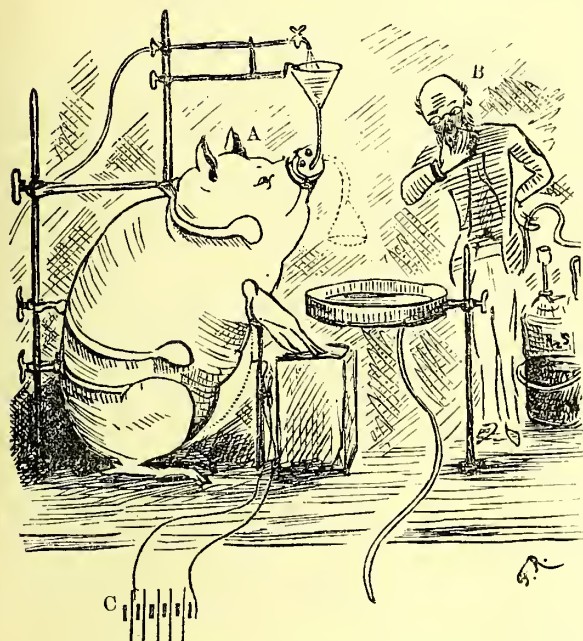


As matters now stand, the preparation of pig pepsine is a pastime in which few pharmacists participate. A brief account, therefore, of the existing process, and of an



the subject of a patent, we understand it was not accepted by the editors of the *Pharmacopœia*.

The accompanying drawings, which have been supplied to us by the inventor, will enable the reader to grasp the



*rationale* of the process better than any lengthened verbal description.

A is the pig, and B is the pharmacist.

The former is supported in a vertical position by means of a retort-stand. An indiarubber tube, to which a funnel is attached, is then passed through the snout to the pit of the

The pig, being attached to a horizontal shaft supported by two iron stanchions, is made to revolve at great speed in the manner shown in the illustration. This naturally occasions brisk agitation in and about the abdominal region. The mucous membrane being thoroughly scoured by the sand, the gastric microzymes and their secretion are effectually removed. The latter is soon taken up by the water, which is then converted into a weak solution of pepsine. This is removed by a syphon, treated with acetate of lead and  $\text{H}_2\text{S}$  in the usual way, and the pepsine recovered by evaporating to dryness in a vacuum-pan.

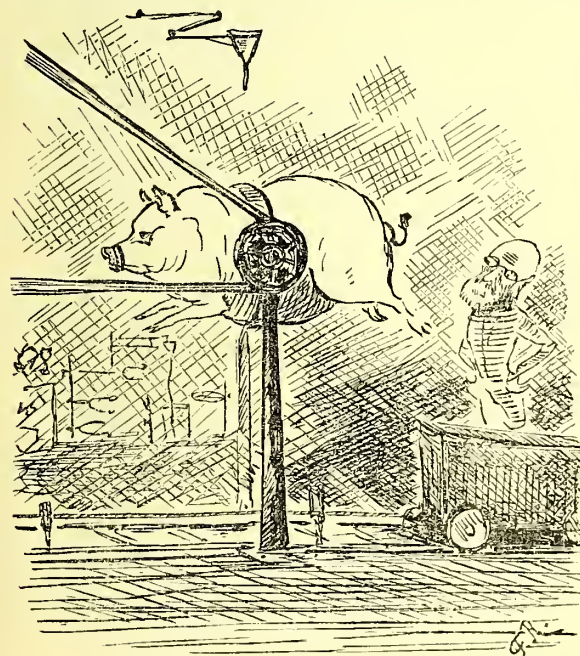
The advantages claimed by the inventor of the process are as follows:—

1. It is humane. It necessitates no slaughter, no shambles, and no superfluous stomachs.
2. It is efficient. The friction of the sand against the coats of the stomach acts like a scratch-brush in a lathe, and removes every particle of peptic principle.
3. It is economical. A single pig will suffice for the requirements of even the largest manufacturer, and, since it is generally acknowledged that the longer an animal fasts the greater is the yield of pepsine, the pig's rations may be reduced to a minimum.
4. Where steam-power is not available to rotate the pig, the spinning may be effected by hand, thus affording a pleasant change of occupation and healthy exercise to the much too sad and sedentary pharmacist.

#### A FEW NOTES ON FRENCH PHARMACY.

THE following paper was read before the Midland Counties Chemists' Association on November 25 by Mr. John Barclay. Premising that he had lately visited France and had had some opportunities for obtaining information there, the essayist said:—

I shall begin by describing the educational and examination side of French pharmacy. There are in France three superior schools of pharmacy—viz., at Paris, Montpellier, and Nancy. Those at Paris and Montpellier were established in 1803. Besides these there are the mixed medical and pharmaceutical establishments at Lille, Lyons, and Bordeaux, and in addition sixteen preparatory schools from which a second-class diploma only may be taken, whilst at the superior and mixed schools a student may prepare for either class. The school of Paris, which I had the privilege of visiting last October, is by far the largest school in France. It is a Government institution, and cost in building 7,000,000*fr.*—over a quarter of a million of our money. The school is devoted to pharmaceutical study only, and its staff is as follows:—A director, secretary, two secretaries' clerks, and an inspector of collections, materials, &c.; professors of botany, zoology, materia medica, toxicology, pharmacy, inorganic chemistry, physics, organic chemistry, galenic pharmacy, cryptogamy, hydrology and mineralogy, and finally analytical chemistry for the completion of the course. There are, too, four masters of practical work, a librarian and assistant, and a head gardener. The building comprises museums respectively for drugs, botanical, physiological, physical, and chemical specimens; three large lecture halls, three chemical laboratories—one for each year of the students of three years. The professors have each a private room, and there is a large examination hall. An important feature of the institution is a large garden, divided and sub-divided into many small beds, where the students may, under the direction of the head gardener, grow any plants whose development they may wish to watch. The building is large and massive, and, by the side of our own head establishment in Bloomsbury Square, would throw it into a very deep shade. Underneath the building is an entrance down some steep stone steps into the catacombs of Paris, which extend for a distance of twenty-seven miles underground—rather a lively foundation for a building. The sixteen preparatory schools mentioned above have each a staff of twelve titular professors, two superintendents of



abdomen. About seven pounds of coarse sand having been introduced, the pig is filled up with water. A suitable electrical arrangement in connection with one of the front legs from the battery C indicates when this point has been reached.

The mouth is then closed by a clamp, and the pig removed on a trolley. The next step in the process is seen above.



practical work, besides subordinate officers. Four of the titular professors teach chemistry, toxicology, natural history, pharmacy and materia medica; the other eight devote their time to the medical students. Three of the assistant professors teach, respectively, chemistry and physics, pharmacy and materia medica, and natural history. You will see from this that the pharmaceutical aspirant is in no danger of having his light extinguished, but has every opportunity of learning his profession and of excelling in it.

In the year 1780 the French College of Pharmacy was founded, composed entirely of pharmacists. It was then authorised to open schools for the teaching of pharmacy and to superintend the pupils at work. It also appointed delegates to preside over examinations, to defend the rights of the profession, and to superintend the exercise thereof.

The conditions relating to the age, admission, and studies of the candidates were to be regulated by letters patent, and are as follows. I may say here that these regulations are continually being improved or altered, and that I give them as they hold now.

In a town where a pharmaceutical school exists, the *élèves* or apprentices attached to a pharmacie for the purpose of accomplishing the time ordained by law, viz., three years, must inscribe himself within a fortnight from the time of his entry into the pharmacie at the school of pharmacy—that is, he writes his name in a special register provided for the purpose. This inscription (so called) cannot be done by proxy or by letter; the student must do it in person, and any false declaration will nullify the inscription, and he will have to serve his year from the time of a new and correct inscription. This ceremony must be undergone once a year. If there is no pharmaceutical school in the place, the Justice of the Peace keeps a register in which inscriptions may be made. When a student has failed to inscribe, a certificate from his employer stating the time of his serving will answer the purpose.

When a pupil moves from one pharmacie or town to another he must produce a certificate of his stay with his former employer, and a fresh inscription must be made. The *élève* spends his time in learning or not learning his profession, and at the end of that time he may enter a pharmaceutical school for the purpose of obtaining his diploma. He has, however, before making his first inscription at the school, to undergo an examination in what the French call validity of stage—what we call practical pharmacy. This examination costs 1*l.*, and is held before a special jury enrolled for the purpose. It consists of the following subjects:—

(1.) Preparation of a compound pharmaceutical or chemical according to the Codex.

(2.) A magistral preparation.

(3.) Determinations of 30 plants or parts of plants selected from the Codex, and of 10 compounds.

(4.) Questions on sundry pharmaceutical operations.

The time allowed for the above tests is:—For the 1st, four hours; 2nd, 3rd, and 4th, one hour each section.

The scholastic terms are 12 in number, lasting for three years, reckoning four terms to the year, and 12 inscriptions must be made, one at the end of each term. If a student has passed the test examination held in the interval between two inscriptions he is allowed to inscribe and proceed to the next course of study; if not, he cannot inscribe, and has, scholastically speaking, to retrace his steps. This system seems to me to somewhat correspond with our own system in the English Board schools, where there are so many standards to pass. The pupil entering the school must give in to the secretary—(1) His certificate of birth; (2) certificate of pass in the examination in practical pharmacy mentioned above; (3) in view of taking a first-class diploma, his certificate of bachelorship in either science or arts; in view of second-class diploma, a certificate of examination in arts and physics. This is an examination probably equalling our own Preliminary. (4) If the student is a minor he must give a proof of the acquiescence of his parents or guardians in his following the profession of a pharmacist. He must also write in a special register his name in full, date and place of birth, and correct address of one or more parents. The student making a false entry will lose one or two inscriptions—quite a sufficient punishment. By a law passed July, 1883, if a student neglects to take inscriptions, or test examinations, during a time of two years, he will lose the benefit of all inscriptions made since his last successful test examination.

The student for a first-class diploma undergoes two examinations during his three years of probation, viz., one at the end of the fourth and eighth inscriptions, and tenth inscription, *i.e.*, at the end of the first and second year, and in the middle of the third year. These examinations comprehend the work done during the time previous to them, and each costs 2*l.* You will therefore see that the few fees payable are not for tuition, but for examinations; and there are, of course, incidental fees for the use of laboratories and libraries, and those to defray expenses for materials, &c. The student for a second-class diploma undergoes two examinations each at the same time as the first two for the first class, there being no third examination. These examinations are both free. The first examinations for both classes take place in August, and the student who is ploughed may take his examination in November, or not again till the following August of the next year.

The student who has taken his twelve inscriptions, *i.e.*, served his three years at the school satisfactorily, may take his final examinations. These are exactly the same for both classes, and take place in August and November—the minimum time before a ploughed student may take the examination again in three months. The examination is divided into three parts, and each part is subdivided into two tests—

*Part I.*—Test 1. Practical chemical analysis. Test 2. *Vivâ-voce* questions on physics, chemistry, toxicology, and pharmacy.

*Part II.*—Test 1. Practical micrography. Test 2. *Vivâ-voce* questions on botany, zoology, hydrology, materia medica, and mineralogy.

*Part III.*—Test 1. Questions on five chemical preparations, and five pharmaceutical ditto. Test 2. Questions and preparation of five chemical compounds and five pharmaceutical ditto.

The candidate who fails in the second test of the third part retains the benefit of his first two parts. You will probably agree with me that the examination sounds very big and that there are a great many ologies. But it is the names that are new rather than the sciences. For instance, as probably most here know, hydrology relates to the study and analysis of water, mineralogy to the study of minerals, micrography to that of microscopic objects, cryptogamy to those plants whose fructification is concealed, and toxicology to the science, doses, &c., of poisons, with practical illustrations of their action.

The candidate who presents at the office three full days before the day of examination 103 copies of an original essay considered sufficient by the jury may dispense with the third part of the examination. The examination for the first-class diploma costs 23*l.*, that for the second 16*l.*

In July, 1878, a decree was published enabling a student to obtain a superior diploma. This diploma gives a higher degree and enables a chemist to call himself "Pharmacien de première classe es sciences naturelles ou es sciences physiques." To obtain this he must pass a fourth year at the school, during which time he must undergo an examination and support an original essay. A pharmacien who has obtained this diploma may be nominated fellow or professor at any school of pharmacy.

The pharmacien "de première classe" may set up in any part of the French Republic, but he with the second-class diploma may only carry on business in that department in which he has passed his examination; and if he wish to remove to another county he must there undergo the final examination again.

They have in France a class of pharmacists the equivalent of which is not to be found in England; that is, we have such a class, but it is not recognised by the State—I mean that of herborists, or, as we should call them, herbalists. To become a "herborist" one must undergo a preparatory examination in reading, writing, and arithmetic, also in the elements of the metric system. Then at twenty-one years of age the candidate must pass an examination, consisting of knowledge of medicinal plants, the precautions necessary for the gathering thereof, their desiccation and preservation. The examination and diploma cost 100*fr.* or 4*l.* There are several scholarships to be obtained in pharmacy, but the enumeration of them would scarcely interest a foreign audience.

Having described the way in which the titles of "Pharma-



cien de première classe," "Pharmacien de seconde classe," and "Herborist" are obtained, I will now endeavour to say a few words on the way they carry on their businesses. The French pharmacie—never called a shop—does not differ very materially from the English place of business, but I will give a brief description of it. The large show-colour carboys, so characteristic in England, are generally conspicuous by their absence, there being, as a rule, no further indication of the occupation of the proprietor than his name, inscribed in gold letters on a board stretching from one end of the window to the other, with the title of "Pharmacien" after it. If a man has the superior qualification he says so; if he has not he does not say that he has the minor diploma. I speak now, of course, of the original French pharmacies, as these remarks do not apply to many of the shops in Paris and other large towns, where the population consists partly of Englishmen. There the English custom of making the window as attractive as possible is adopted. Occasionally, too, the diploma of the pharmacien is to be seen displayed in the window—especially in the case of a first-class diploma. Looking at the place from the outside, it seems to be not half so lively as our shops in England, and one might think that the proprietor is not half so anxious as he might be to do business. And this is often the case, and a reason for it might be given in the fact that a pharmacien is often independent of his business, and this, in many cases, is because a pharmacien can generally marry well. To prove how acceptable a pharmacien is as a husband, a friend of mine, a pharmacien, told me whilst in France that no less than three matrimonial attempts had been made upon him by designing mothers.

The interior of the place has a sleepy aspect; there are in most cases no drawers to be seen, whilst the bottles are enclosed in sliding cupboards, a provision which obviates, to a great extent, the necessity of dusting, and on that account would be welcomed by some of us industrious apprentices. Then at the back of the shop there is a room which answers the purposes of laboratory, dispensing and analytical rooms. Some chemists have still larger rooms, still further back, where they manufacture their specialties and the more easily made preparations of the Codex.

It seems to me from what I saw when in Paris, and from what I have heard since, that the pharmacien in France holds a higher position, both socially and educationally, than we do. This, I think, is to a great extent the result of the protection afforded him by the French laws. He has not that fight for a living which many of us have. He is not in danger of having his rights infringed by a neighbouring grocer, druggist, or herbalist. The grocer, by a law passed in 1777, can sell no medicinal substance—not even a small quantity of lime flowers; the druggist can only sell drugs in bulk. Only last year a druggist was prosecuted and fined for selling a small quantity of castor-oil. And the herbalist can sell only herbs and modifications of herbs. It is forbidden for any company to set up a pharmacie, unless every member thereof is a pharmacien. Last year, at the compiling of the new Codex, pharmacians stood on an equal footing with the medical men. In such matters as these they have the pull of us, but they, too, have their restrictions. No pharmacist can sell any patent medicines or secret remedies whatever, but must state, to some extent, the contents on the label of the bottle or package. This seems to me to be an advantage in one way, as it gives a man a better chance of selling his own stuff, and makes him to a certain extent independent of the sale of other people's stuff.

In May, 1882, a pharmacist was sentenced to eight days' imprisonment, and a fine of 1,000f. and 2,000f. costs, for supplying a lady with morphia on the repeated production of the same prescription. The law argued that he ought to have either asked for a new prescription or to have seen the original one endorsed. The sentence was afterwards mitigated, but this shows that the law is pretty smart down on any poor pharmacist who is unfortunate enough to incur its displeasure. A pharmacist in France undergoes every ten or eleven months a ceremony which is called inspection. Two doctors and professors of medicine, accompanied by one or more members of the School of Pharmacy, and assisted by a commissary of the police, visit every pharmacie and examine all the store-rooms and laboratories to ascertain whether all the drugs are of good quality and in good preservation; if any spurious or bad drugs or preparations are found they are immediately seized, and the pharmacien is

liable to be proceeded against by law. These officials also make the assistants dispense in their presence, in order to see whether they know their profession. This, all will admit, is a justifiable precaution, and, in some cases, only too necessary.

There is a good deal of trade done in herbs in France, and these are only obtainable from chemists and herbalists. The public buy them, and make decoctions and infusions of them for themselves; they are, too, infused in sick chambers to purify the atmosphere. A compound of several pectoral flowers is much sold under the name of "les quatre fleurs," and used for many ailments. A peculiarity in French prescribing is the frequent use of syrup as a vehicle for mixtures, &c.; instead of, as we should find, *aqua ad* so much, they have it, *syrup ad* so much. In the Codex, too, the syrup feature is a good deal more predominant than the liquor. This seems to show that the French people like their physic nice. Wines are much prescribed, and there are a great many kinds, such preparations as *vinum quinquinae* and *vinum cocae* being very common, more so than the tinctures. These wines are always made from a good base. Mineral waters, too, are of great variety, and are much prescribed. The French medical men order a great deal more packed goods than ours, especially in the case of proprietary pills. When a doctor tells a patient to use poultices, he always says on the prescription, "Send linseed; send muslin," &c., and when a prescription of this sort is required, it amounts up to a very big thing. Prussic acid is rarely, if ever, used, and I am told that a Frenchman will lift up his hands in horror at the sight of it. So far as I can hear, the French pharmacists do not think it necessary to spend so much time and care over a prescription as we do, and it is the exception, rather than the rule, to put directions on the bottle. Moreover, much more licence is allowed and taken with a prescription than we should think ourselves warranted to take. There is one duty which falls to the lot of the French pharmacist which would, I think, puzzle the most astute of our English chemists to perform, viz., that of embalming. There are, as you know, a great many visitors in France, especially in the South, and a great many of these are invalids who go for the sake of the gentle climate. When one of these visitors dies, and his relatives wish his body to be transferred to his native place, in order that he may sleep with his fathers, the process of embalming has to be gone through. For this purpose a chemist and a doctor are called in; the chemist embalming the body by pumping a preservative fluid (10 per cent. chloride zinc, 5 per cent. bichloride mercury) into the veins of the corpse. When the job is done the chemist and doctor share the fees—generally from 40l. to 80l. This is a decidedly lucrative transaction, if not a very pleasant one, and the chemist is generally willing to run what risk there is of blood-poisoning, &c., for the sake of the big fee.

The condition of chemists' assistants in France is not quite so happy as it might be. M. Parisot estimates that an assistant receives about 6l. per month, and this for about fifteen hours' work, besides night duty.

When a student has passed his apprenticeship and cannot, for want of means, enter a school for the purpose of taking his diploma, he is still treated and paid as an *élève* despite his increased experience.

There is a Bill before Parliament now for altering the regulation of pharmacy in France, and it has been introduced with great difficulty owing to the disagreement among the pharmacians. The Bill includes:—

- (1.) The suppression of pharmacists of the second class and of herbalists.
  - (2.) Liberty of sale by any person of a list of harmless plants and drugs included in the Codex.
  - (3.) Liberty to pharmacists to sell any substance whatever on their own responsibility and that of the buyer.
  - (4.) That a pharmacien may prepare, advertise, and sell any preparation—wholesale and retail—which is not a secret remedy—that is, whose composition is known.
- But whether this will become law, and whether it is advisable or unadvisable it is not for me to say.

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At last we know why "uneasy lies the head that wears a crown." A newly-arrived chiropodist from the old country announces himself as late corn-doctor to the Court of Germany, and tells us he has removed corns from several of the crowned heads of Europe.—*New York Life*.



## FRENCH CORRESPONDENCE.

*The Coming Fight at the Cochin Hospital.*—"Laïcisation" is a barbarous word lately added to the French language, and it is neither short nor pretty, nor even very clear. When applied to a hospital it means the driving out of the sisters of charity and the substitution of paid nurses. As you probably know, all the Paris hospitals have thus been treated, with the exception of two or three. So far no resistance was offered, because the power of the Municipal Council could not be disputed. But with the Cochin institution the case is different, owing to the peculiar organisation of the hospital and the decided stand taken by the medical profession, to which the pharmaceutical cannot remain indifferent. As regards origin, the hospital was founded and endowed by the Abbé Cochin, a rector of the St. Jacques-du-haut-pas Church, about one hundred years ago. One of the conditions of the deed was that the hospital should remain under the sole charge of the sisters of charity, and letters patent granted by Louis XVI. confirmed the deed. Less than a year since the Municipal Council voted the "laïcisation" of the hospital; but the heirs to M. Cochin—an influential family headed by M. Denys Cochin, himself a member of the Council—protested and threatened to appeal to the courts to obtain the forfeiture of the grant and the reversion of the property to themselves. The matter then remained in abeyance till lately, when a new Municipal Council passed again a similar ordinance to take effect on December 21. The Cochin heirs declare themselves ready for the fight, and the medical profession openly side with them. A petition has been presented to the Minister of the Interior against the expulsion of the sisters. This document is signed by 107 hospital physicians and surgeons, among whom such names are to be seen as those of Dujardin-Baumetz, Bergeron (the president of the Academy of Medicine), Marjolin, Ricord, Vulpian, Dieulafoy, Sé, Nélaton, and other celebrities. The importance of this protestation, made solely in the interest of the patients, may be estimated from the fact that there are only 180 hospital physicians in all, that a certain number probably dare not speak their mind, while some may be simply indifferent, and that it is the first time the medical profession find an occasion to take an effective stand against the new system, which they are well known to be dissatisfied with. Nevertheless the Municipal Council persists in its determination, and insists that the sisters shall leave the hospital on the 21st. M. Denys Cochin, on the other hand, has begun legal proceedings, so lively times are expected.

*The Insensibilisateur Duchesne.*—For years the readers of the French journals have been confronted by pertinacious advertisements announcing a new process for the painless extraction of teeth, attended with no danger whatsoever. The operator is reported to have become quite wealthy; but a prosecution instituted after the decease of a patient who died while undergoing the process has taught us two things. The first is, that the insensibilisateur in question is simply the plain and vulgar "laughing gas," decked in an original livery to make it appear as if it belonged to the establishment. The second is, not that nitrogen protoxide may cause death just like ether or chloroform, for more than one fatal result from its inhalation is known to have occurred in the United States, but that in France the gas must be only administered under the supervision of a physician. Dentist Duchesne, not having graduated as such, has been sentenced to 600 francs fine and 3,000 francs damages to the deceased patient's family. The judgment, it is said, will be appealed against, but the result is hardly doubtful, for here, as in some other countries, only physicians are licensed to kill.

*The Pharmacists not in Luck.*—The pharmacists have lately been unfortunate in the courts, and it must be confessed they have deserved their reverses. In one instance a pharmaceutical trade association was ill-advised enough to prosecute some Paris herbalists because they were selling flannel underclothing impregnated with oil of Scotch fir

(*Pinus sylvestris*), the said flannel being recommended by the dealers as beneficial in rheumatism. The goods were held by the court not to be medicaments, and the pharmacists condemned to pay the costs of the suit. In another instance a pharmacist of Besançon, not satisfied with poisoning nearly to death the two Demoiselles Grille with aconite root dispensed for elecampane, claimed ten thousand francs damages from the local papers because they had published a simple account of the accident. In his place many chemists would have kept quiet and said nothing. But for his pains he lost his case against the papers, and was sentenced to 500 francs damages towards his lady customers, together with the costs of both actions.

*Overcrowding of the School of Medicine.*—It seems that more than two hundred matriculated students attending the third year's lectures of the Paris School of Medicine are unable to find accommodation in the dissecting-rooms attached to the institution. The young men, who are all of French nationality, complain that their places are taken by foreign students, more numerous this year than ever before. They justly claim that hospitality is a very fine thing, but should not be carried to such an excess. Steps are being taken to give all satisfaction.

*Reported Failure of Pasteur in a Case of Hydrophobia.*—An ugly rumour is current that Pasteur's treatment has, a day or two since, proved unsuccessful in the case of a young child. But the truth or falseness of the report is hard to establish, because political passions have come into play, Pasteur being obnoxious to the Radicals as a religious man. Yet, unlike Paul Bert, he takes no active part in politics. After all, the little patient may have died from some other cause than hydrophobia. The patients so far treated now number nearly one hundred.

*Meteorological Cablegrams.*—At the last International Congress, held in Paris last September, the question was discussed of the usefulness of weather signals from the United States. Their value was undoubted, but the difficulty was to find a system of cheap transmission. M. Teisserenc de Bort has perfected a new code by means of which four words of three letters will suffice to send by cable all the data necessary to establish weather forecasts.

*Geological Discoveries.*—At Nogent-sur-Marne, a pretty little town about twenty minutes by railway from Paris, M. Rivière has found a number of interesting specimens in the sand quarries which he is working. The objects discovered consist of bones and teeth of the *elephas primigenius*, *rhinoceros tichorinus*, and undetermined varieties of the horse, deer, and ox families. But an interesting fact is that among these animal remains highly finished stone implements were also discovered. Similar bones and teeth had already been found in the neighbourhood, but so far the flint objects of human fabrication had been rare and of doubtful nature. This time the proof is clear that man was contemporary with the large quaternary animals on the Paris plateau.

*Death of Dr. Bouley.*—Henri-Marie Bouley, who died November 29, was born in 1814. Having adopted the medical profession he graduated successively as both a physician and a veterinary surgeon. Veterinary medicine was his choice as a study; he became in 1840 a professor at the Alfort Veterinary School; in 1866 a member of the Academy of Medicine, veterinary section; and in 1868 a member of the Academy of Sciences. He also filled other important positions, and at one time tried to enter political life, an attempt which, fortunately for him, was unsuccessful. His contributions to science were many and important, and some of his works on veterinary medicine are now classic. At the time of his death he was the President of the Academy of Sciences.

*Death of Baillière.*—This well-known publisher died last November, aged eighty-eight years.

The staff of the *Répertoire de Pharmacie* have seceded from that journal and have established a new one, which will be conducted by Mr. C. Crinon under the title of *Archives de Pharmacie*. If the new enterprise should succeed, its title will lead to some confusion between itself and the well-known German periodical, the *Archiv der Pharmacie*.



## DEPRESSION OF TRADE INQUIRY.

THE Royal Commission on Depression of Trade and Industry have submitted a series of questions to the various Chambers of Commerce of the kingdom. By the London Chamber of Commerce these have been answered generally, and again by the several trade sections into which the Chamber is divided. The Chemical Trade Section's answers are as follows:—

*In what proportion do the trades and industries of your district find their market at home, or in foreign countries; and, as regards the latter, in which countries chiefly?*

The chemical products of manufacture of this district are very largely exported, but the branches of trade included are so various that it is impossible to form an accurate estimate of what proportion is exported, and what proportion is retained for home consumption.

*How has the trade and industry of your district been affected in the last five years as compared with the periods 1865-70, 1870-75, 1875-80, as regards—(a) its volume; (b) its gross value; (c) its net profit; (d) the amount of capital invested; (e) the quantity of labour employed?*

(a) The volume of the chemical trade of London, both of goods manufactured in London and of goods of foreign production sold in London has somewhat, if not considerably, increased in the last four years.

(b) The gross value has in most cases decreased, owing to the great fall in values, which fall averages as much as 50 per cent.

(c) Net profits have greatly diminished in almost all branches, margins being increasingly small, chiefly owing to excessive competition.

(d) The amount of capital sunk in fixtures and plant has increased in most branches. The total capital employed is probably less, owing to the fall in value of raw materials, and still more in manufactured goods.

(e) The quantity of labour employed is greater, wages averaging 10 to 20 per cent. higher all round, without a corresponding value in services rendered.

*Is the rate of wages in relation to service rendered and to the quality of the work produced (a) for skilled labour and (b) for unskilled labour in your district above or below the average for the past twenty years?*

Labour in chemical works would be generally classed as unskilled; the rate of wages being considerably above that of twenty years ago, and has not diminished in the last four years. The hours of labour are shorter as a rule.

*To what extent do you consider that the present condition of trade and industry in your district has been affected by the operation of any of the following causes:—(a) changes in the relation between capital and labour; (b) changes in the hours of labour; (c) changes in the relations between the producer, the distributor, and the consumer; (d) fall in prices, or appreciation of the standard of value; (e) the state of the currency and the banking laws; (f) restriction or inflation of credit; (g) over-production; (h) foreign competition; (k) foreign tariffs and bounties; (l) incidence of taxation, local or Imperial; (m) communication with other markets; (n) legislation affecting trade; (o) legislation affecting land?*

(c) The great fall in prices, and the entire lack of confidence, has caused a great disinclination to hold stocks. Demand is generally only for immediate consumption, and is, therefore, fitful and uncertain.

(g) In many branches of trade the output was greatly increased in the prosperous times following the Franco-German war, and great over-production was subsequently the consequence.

(h) Foreign competition is extremely strong, and keeps the margin for profit unnaturally low. Moreover, scientific education, as adapted to industrial production, has been organised on a better basis abroad, more especially in Germany, than in this country, and is undoubtedly one of the items to be considered in international competition.

(m) The effect of increased telegraphic communication with distant markets and the more rapid communication, *via*

the Suez Canal, together with improved lines of steamers, have tended to decrease stocks in transit, and those in the hands of merchants and dealers. Little provision is made against a demand till it actually arises, and, as any fall in the markets between the time of shipment and arrival is at once telegraphed, falls on the owners in transit, orders are put off as long as possible. The demand thus becomes extremely irregular, alternating between excitement and stagnation, and economic production is thus rendered increasingly difficult.

(n) Legislation affecting trade. It might be of assistance to the trade, although the committee does not desire to attach undue importance thereto, if mixing and manufacturing excisable articles were permitted in bond with fewer restrictions, and if steps could be taken for the creation of an International Pharmacopœia.

Signed on behalf of the  
Chemical Trade Section Committee,  
DAVID HOWARD,  
Chairman.

The answers received by the committee were all substantially in accord, varying only in unimportant details.

# SYRUP OF HYPOPHOSPHITES COMPOUND WITH QUININE AND STRYCHNINE (FELLOW'S SYRUP OF HYPOPHOSPHITES).

MR. CHARLES E. DOHME contributes to the proceedings of the Maryland Pharmaceutical Association the following:—

Quite a lively demand has been created throughout the country for a compound syrup of hypophosphites, known as Fellow's Syrup, a proprietary preparation, for which wonderful remedial properties are claimed, and which, according to the circular and endorsements sent out to the trade and physicians, is said to contain—besides the long-used hypophosphites of calcium, sodium, potassium, and iron, in addition to the hypophosphites of manganese, and also quinine and strychnine—quite a collection of salts.

Having been requested by several physicians to prepare a syrup to contain all these salts in suitable proportions, various experiments were made by the writer to construct a formula that would meet the purpose, and at the same time furnish a slightly, clear syrup, and one that would keep well, with careful handling.

The following formula was finally adopted, furnishing the preparation in elegant form, and apparently keeping well:

Take of—				
Hypophosphite of calcium	..	..	..	740 grains
.. sodium	..	..	..	256 "
.. potassium	..	..	..	192 "
.. manganese	..	..	..	192 "
Sulphate of iron (crystal)	..	..	..	370 "
Strychnine	..	..	..	4 "
Sulphate of quinine	..	..	..	123 "
Diluted sulphuric acid	..	..	..	q.s.
.. hypophosphorus acid	..	..	..	q.s.
Distilled water	..	..	..	q.s.
Sugar	..	..	..	24 troy oz.
Orange-flower water	..	..	..	1 oz.

Dissolve 228 grains hypophosphite calcium in 4 fl. oz. of distilled water, and the sulphate of iron in 2 fl. oz. distilled water; mix and filter. Dissolve the remainder of the hypophosphite of calcium, together with the hypophosphites of sodium, potassium, and manganese in 4 fluid oz. hot distilled water, using about 1 to 2 fluid drachms of diluted hypophosphorous acid to dissolve them, mix with the two solutions, and set aside. Dissolve the strychnine in 2 drachms of distilled water, by the aid of a few drops of hypophosphorous acid, and again mix with the other solutions. Now dissolve the sulphate of quinine in about 8 oz. of water, using sufficient diluted sulphuric acid to dissolve it, and precipitate the quinine with sufficient diluted aqua ammonia (about 1 part to 6 of water), until ammonia is in slight excess. Wash the precipitated quinine on a fine muslin strainer, and transfer the moist light quinine to a mortar or small dish,



and rub it into a smooth paste, then gradually add enough diluted hypophosphorous acid to dissolve it, which solution is also added to the solution of the other hypophosphites, making the whole fluid measure about 16 fl. oz. To this add the granulated sugar and orange-flower water, and dissolve cold by agitation in a bottle. When the sugar is all dissolved, filter the syrup, and add sufficient distilled water to make the whole measure 32 fl. oz. The syrup may be flavoured with a little extract of vanilla, if preferred to the orange-flower water.

It contains in each fluid drachm hypoph. calcium, 2 grains; sodium, 1 grain; potassium,  $\frac{3}{4}$  grain; manganese,  $\frac{3}{4}$  grain; iron,  $\frac{3}{4}$  grain; quinine,  $\frac{1}{2}$  grain; and strychnine,  $\frac{1}{64}$  grain. It is best kept in full well-stopped bottles.

As some may prefer the syrup without either the iron or manganese, either one or both may be left out, and the formula otherwise followed as described above.

## THE GROWTH OF LICORICE IN EUROPE.

### ITS CULTIVATION IN SICILY.

*Report by CONSUL WOODCOCK, Catania.*

**L**ICORICE grows to the height of 2 or 3 feet. It bears a small yellow flower. Its leaves are pinnate. The roots grow from 6 to 20 feet in length.

The valley of the river Simeto (ancient Symæthus) in this consular district is rich in vegetation. Here not only all the cereals grow to perfection under the rude culture of the rustic Sicilian husbandman, but the wild plants with which the farmer has to contend spring up spontaneously. Among the latter may be classed the licorice plant.

In response to a question asked of a Simento Valley farmer, if the licorice plant grew upon his farm, he replied, "God forbid, for of all wild vegetation it is the most difficult to subdue."

If any particle of the root is left in the ground, it grows and sends up shoots. It is not cultivated in this district; it grows in a wild state. In the fields where it grows are cultivated not only the various grains, such as wheat, oats, barley, &c., and vegetables, but also oranges, lemons, and the various other fruits of this climate. Of course this plant is injurious to the grains and fruits, but the thorough digging of the soil for the roots of the licorice is beneficial to the production of crops.

The agriculturist here uses the most rustic of implements. His plough is that of the old Romans, consisting of an iron point which simply scratches the soil without turning a furrow. In digging for the licorice root, the soil is thoroughly turned over, and is dug to the depth of from 1 to 3 feet.

There are two species of the licorice plant here. The one sends down a main root to the depth of from 3 to 6 feet with but few lateral roots; the other does not sink so deep into the earth, but creeps beneath the surface at a depth of from 6 inches to 2 feet.

The latter plant is most productive, and is the most highly prized.

Doubtless if the licorice plant were cultivated it would yield larger results. The people here think its culture will not pay, hence they are satisfied to collect it as produced by nature in its wild state. There is no use made of the stem except for fuel.

The licorice plant grows most luxuriantly in the valleys adjacent to streams of water. It is, however, found among the foot hills of the mountains, but here grows less luxuriantly. It requires a moist soil consisting of a clay loam. The climate must be warm, such as is adapted to the growth of oranges, lemons, and the other semi-tropical fruits. It cannot endure frosts or cold, high altitudes.

The root continues to grow for four or five years, when it is considered in the best condition for gathering. The root will continue to grow for ten or twelve years longer, but it is not considered so rich in juice-yielding quality.

The crop is gathered from the same ground once in four or five years. On the average 100 pounds of the root produces 16 pounds of licorice paste. During the months of June, July, August, and September, and the first part of October the root is not disturbed, for the reason that it is then in full

vegetation, and for the further more important reason that the ground is dry and hard baked by the sun, and it is with much difficulty and great expense that it can then be dug.

As soon as the autumn rains set in in sufficient quantity to saturate the ground the root harvest commences.

During the months aforesaid the manufactories of licorice are idle, doing little or nothing in the way of manufacture. In Catania there are some seven manufactories of licorice, which employ from twenty to forty hands each, and are capable of manufacturing 750,000 pounds of the root. There is also a factory in Paterno; another in Caltogeroni, and another in Terranova, in this district.

When the roots are taken from the earth they are bound in bundles, and upon the backs of mules transported from the fields to the factories. Here they lie in store for a time in a state of seasoning.

When the roots are sufficiently cured men and women, with hatchets, cut them in bits of from 3 to 6 inches in length. These are then plunged into a vat of water and thoroughly washed. They are then crushed in a mill of rude construction. It consists of two circular stones of lava. The one is in horizontal position; the other, perpendicular, rests upon it. Through the centre of the upper stone is an axle, to which is attached a mule, which revolves it slowly in a circle (cart-wheel like) upon the lower stone. A workman with a wooden shovel is constantly employed in keeping the roots beneath the revolving stone. When the roots are sufficiently crushed they are placed with water in kettles and boiled for twenty-four hours. They are then removed from the kettles and placed beneath a screw-press, and all the juice is thoroughly squeezed out, which runs into a cistern beneath. This juice is pumped from the cistern and passed through a sieve into kettles and the boiling resumed. The sediment from the strainer is again pressed.

The contents of the boiling kettles is a second time filtered. When boiled to the proper consistency it is removed to a broad, shallow kettle over a slow fire, where workmen with spades continue to stir it until it becomes dense enough for paste. Then it is removed and placed in wooden moulds of the size they wish the cakes, or by workmen worked into little rolls or sticks. When cold and hard the cakes are wrapped in paper and boxes for export.

The little rolls or sticks of licorice are placed upon shelves to dry. When they become perfectly dry and hard they are packed in laurel leaves in boxes.

In preparing the root for market women with knives scrape off the bark and then cut it into bits of one half inch or longer in length, as the purchaser may wish. These are then dried in the sun and placed in bags for export.

In response to my question a manufacturer answered that licorice paste may be adulterated with starch, rice flour, wheat flour, flour of the carraba (locust bean), or even wood ashes; but he expressed the opinion that the manufacturers of Catania could not be so recreant to honesty as to resort to these base methods.

The Chamber of Commerce of Catania report that in the year 1883, 440,920 pounds of the root were prepared by the manufacturers and exported to the United States, in value amounting to \$11,580, and that 79,126 pounds of the root were manufactured and exported to France, in value amounting to \$2,079, the total export for the year being 520,080 pounds of the root manufactured, valued at \$13,659.

As shown by my records for the year 1884, there were exported to New York of licorice paste 112,746 pounds, valued at \$14,965.85, and of the root 14,047 pounds, valued at \$567.24: the total value of the article exported for the year being \$15,533.09.

### ITS CULTIVATION IN PORTUGAL.

*Report by VICE CONSUL-GENERAL WILBOR, of Lisbon.*

I have had the honour to receive your circular dated February 10, 1885, propounding interrogatories in relation to the growth and cultivation of licorice.

I beg to report that licorice grows in Portugal, in a few districts, spontaneously, but no use whatever is made of it. Such of the various preparations of that root as are used in this kingdom are entirely of foreign origin.

The licorice root and paste exported from Portuguese ports are originally sent hither from Spain for shipment.



## Veterinary Pharmacy.

### RABIES AND HYDROPHOBIA

**A**RE terms used synonymously, but should be kept distinct, since rabies is a disease of dogs, and hydrophobia is the dreadful malady produced in man by the inoculation of a rabid animal. The confusion existing in the public mind on this subject, and the additional interest recently manifested since M. Pasteur's claims to a remedy have been set forth, induce us to go into the subject at greater length than might have been considered necessary for the purposes of this journal. The chemist, however, is in nine cases out of ten the first person to be consulted when a person is bitten, and he should, therefore, be thoroughly *au fait* on the subject. The history of rabies is lost in antiquity, but the earliest writers on medicine clearly recognised hydrophobia in man as the result of a bite by a rabid animal. Hydrophobia, as most people are aware, means a dread of water, and the inability of persons affected to swallow water or any other fluid is one of the marked symptoms of the disease, in some cases even the *sound* of fluids is sufficient to throw the patient into a paroxysm; but what we wish to make particularly clear in these notes is the fact that rabies in the dog, and not hydrophobia, as it is erroneously called, is not accompanied or ushered in by a fear or dread of water, but acute thirst. The tyro who suspects his or somebody else's dog of rabies invariably thinks it a test to offer him water, and if it drinks or attempts to do so the animal is at once pronounced safe. Now nothing can be more misleading or dangerous, and a large and awful experience of rabies makes us earnestly entreat our readers to mark the foregoing distinctions, and contradict such a dangerous popular error which is handed down from one generation to another, and is a frequent cause of persons being bitten who might otherwise have run no risk whatever.

The symptoms of rabies vary in different subjects, and in the various outbreaks which from time to time arrest the attention of the public. It may be said that the commonest symptoms are some or all of the following, and if any of them be suspected it is far better to call in a veterinary surgeon to a dog with nothing the matter than to handle a possibly rabid dog.

1. *Altered Manner.*—The genial affectionate pet will become morose and dull, with intervals in which he brightens up and seems to be himself again; the normally disagreeable or savage dog will suddenly become kind and docile; the sleepy dog lively, and the lively dog sleepy. The appetite for natural food may be lost, and the most characteristic of all symptoms present may be noticed, namely, the eating of wood, straw, coals, mats, rugs, string, paper, and, indeed, any foreign body that may be at hand. This does not, of course, apply to young pups, who will eat or apparently eat cinders for the fun of the thing, thereby unconsciously promoting dentition, or their favourite diversions of tearing up hassocks and slippers; but such conduct in an adult dog without a bad character for mischief should be considered of the gravest import. Marked thirst is a most prominent symptom, and although very little fluid can be swallowed, the dog will make repeated efforts to drink and hold his muzzle under water for some time. When no water is near and he is chained up he will attempt to drink his own urine. Rabies has been commonly divided into two kinds—the first in which the foregoing symptoms are present, and the second is called the *dumb* form. In this so-called dumb madness the fauces and tongue are so swollen as to make the dog unable to keep his mouth shut, he *can* and *does* shut it from time to time in order to try and swallow his saliva, but the jaw drops again and has the appearance of being fixed. It is commonly supposed that dogs so suffering cannot make a noise, but the writer has had them confined, and seen them throw up their heads and howl in that peculiar manner which characterises the disease to those who have before heard it:—

It is not a bark, loud, open, and free,  
As an honest old watch dog's bark should be.  
It is not a yelp, it is not a growl,  
But a something between a whine and a howl.

This noise is not usually made when anyone is present, especially the owner, as the dog brightens up and appears relieved by the presence of human beings; but if watched from a convenient standpoint the dog will be seen "looking at nothing in particular," and then throwing up his head and giving vent to this demoniac sound. If not chained up at this period he will probably range abroad all day and come home at night, and it is in these perambulations that the dreadful mischief is done. He does not, as a rule, deliberately provoke a quarrel with other dogs or bite persons unless they get in his way, by which is meant that anything—a horse, a man, or dog—that may be in the line he is running is sufficient cause of offence to his inflamed imagination to make him snap at it and go on. If not suspected and shot, he eventually dies of exhaustion. Such may be said to be the most prominent symptoms and the most common; but individuals vary in their manifestations of the disease, and no dog should be allowed at large if suspected, and *no dog should be killed without good professional evidence*. Why? Is there not, too, in this matter the most dangerous of popular errors firmly rooted in the public mind?

"Kill the dog at once," says the sympathetic friend to someone who has been bitten, and this is generally done, the result being that the unhappy victim of what may have been a harmless bite goes about for months and years with a sense of impending disaster always present. "Oh, if I only knew whether the dog was really mad or not," he asks himself, and sets to work to read up the symptoms of hydrophobia, and while he reads he feels a swelling in his throat and pain in the old bite, and works himself into an awful state of nervous agitation, which cannot be allayed by showing him the living dog which may have bitten him. Do not, then, kill a suspect, but put him under restraint, and in ninety-nine cases out of a hundred the dog will be proved not rabid at all, and the bitten person will be able to cast aside all fear on the subject. The statistics so carefully compiled by Dr. Fleming, F.R.C.V.S., go to show that not more than one person out of three or four bitten by dogs proved to be rabid afterwards develop hydrophobia; and, when it is considered how many more are bitten through the clothing, the percentage of fatal results is very much less.

*Treatment.*—In dogs and bitten animals of other species treatment has not hitherto availed anything, though the abundant faith of some old writers is quite charming. We cannot refrain from a quotation from Clater, published in 1811, and compare it with the methods of Pasteur and others at the present day.—

#### *Bite of a Mad Dog.*

Musk .. .. . 16 grains  
Native and factitious cinna<sup>b</sup>ur, of each .. .. . 25 "

To be given in a glass of arrack three nights together, and the night preceding the full of three successive moons.

All the treatment, from charms and sorcery upwards—or downwards—has failed utterly when once hydrophobia has unmistakably set in, and the strange thing about it is that a like spasm produced by any other cause can be modified by direct sedatives, but the spasm of hydrophobia cannot be controlled by anything from opium and chloral to woorara.

To M. Pasteur has already been given the credit of finding a cure, or prevention, which is better still, but many of our best men of science cannot get further than to hope it is so. The theory of micro-organisms is in its infancy, and many of Pasteur's experiments do not prove conclusive when tried by equally painstaking physiologists in Germany and England. Moreover, the vaunted results upon the Alsatian lad and others are premature, as sufficient time has not elapsed to prove the safety of the bitten individuals, nor is it proved that they would be among the unfortunate number to develop hydrophobia, although known to be bitten. It is only too well known that when several persons are bitten by a rabid dog that the unfortunate individual with the worst laceration is not by any means the most likely to be inoculated fatally! The enumeration, therefore, of a few cases, and these only covering a short space of time, is quite insufficient to prove Pasteur's contention, although the whole world is sanguine of his results. The theory of micro-organisms—though undoubtedly the field from which the greatest pathological results may be anticipated—is not yet ripe unto the harvest.



"The relation of micro-organisms to the infectious diseases is admitted to be very intimate; and, although it may not be quite so universal as some are inclined to assume, it is, nevertheless, definitely proved to exist as regards some of the infectious maladies affecting man and brutes."—*Klein, "Micro Organisms and Disease."*

That a special kind of micrococcus or bacterium is found in the blood or other fluids of the body when suffering from a well-defined disease does not necessarily prove that they are the cause, but may be present only because a subject in that condition is specially suitable for their development and reproduction; and in our present state of knowledge this suggestion is not satisfactorily disposed of by saying that inoculation with these bacteria produces like results, since Klein has shown that though a rabbit may die when inoculated with the saliva of a rabid animal, he may also die by the inoculation of healthy saliva; for micrococci are present in everybody's mouth, more or less, and very numerous in even the most healthy wounds. Micrococci occur always normally in large quantities in the fluids of the nasal and oral cavities, pharynx, larynx, and trachea; they are, no doubt, from the atmosphere.

Pasteur has inoculated rabbits with the saliva of a child that suffered from hydrophobia, and, having cultivated artificially the micrococci present in this saliva, thought to have discovered that a micrococcus (*microbe speziale*) is the cause of hydrophobia. That saliva of the healthy dog and of man inoculated subcutaneously into rabbits sometimes produces death in these animals (Senator) had entirely escaped his notice, and Sternberg has proved this in an extensive series of experiments. His own saliva proved sometimes fatal to rabbits. They die of what is called "septicæmia," and Sternberg thinks it due to the "micrococci; but this is not to be considered as proved."

While sincerely hoping that Pasteur's system of inoculation may prove not only true, but reducible to practice without his own laboratory, we would point out that extinction of the disease would be better still, and experts are of opinion that this could be done, and that rabies does not arise spontaneously, and, though difficult to trace, it is believed by those who have made a special study of it that rabies can only be propagated by the bite of a dog already affected. Until a year or two ago it had never been known in the Australasian Colonies, and when introduced by an imported dog it was quickly stamped out and strict quarantine enforced.

"Dog-days" are all nonsense, and dogs are not more liable to rabies in hot weather than in cold. How many generations it will take to filter down this fact into Justices of the Peace no one can foretell, but until that happy time arrives dogs will have to be muzzled and made irritable for want of water at the time of year when liberty to drink it is most required.

Blaine, Youatt, and others were great believers in caustic, actual or potential, in the form of nitrate of silver; but many, many cases are on record of death from hydrophobia where caustic has been assiduously employed.

Kent did not believe in hydrophobia except as a creation of a morbid mind; but, poor fellow, he paid the penalty in the forfeit of his own life to this the most dreadful malady to which man can succumb, since hitherto there has been no hope of recovery and no palliation of the suffering.

**A SAFE COSMETIC.**—Vigier recommends boric acid 1, rose-water 100, English honey-water 5, as a lotion which may be applied morning and evening to the face in cases of acne, redness, &c. The skin to be lightly moistened with the lotion.

**FLOUR PASTE.**—Flour, 4 oz. (troy); water, 16 fl. oz.; nitric acid, 1 fl. drachm; oil of cloves, 5 minims; boric acid, 10 grains. Thoroughly mix the flour, boric acid, and water, and strain the mixture through a sieve; add the nitric acid, apply heat, with constant stirring, until the mixture has thickened; when nearly cold, add the oil; strain through coarse muslin if not perfectly smooth. This paste keeps well, and is much superior to tragacanth mucilage and ordinary paste. When it is required for pasting labels on tinued surfaces, the addition of 10 per cent. of glycerine will prevent the labels from falling off after drying.—*Remington's "The Practice of Pharmacy."*

## THE BRITISH PHARMACOPEIA.

### RENEWED DISCUSSION AT THE PHARMACEUTICAL SOCIETY.

THE discussion on the new Pharmacopœia based on Mr. Umney's paper, which we reported last month, was resumed on Wednesday evening, November 25. There was a fairly full attendance. Mr. M. Carteigbe, president, in the chair.

Mr. MARTINDALE opened the discussion by reading a paper. He aimed to limit his remarks to dispensers' criticisms, keeping as clear as possible from what he had elsewhere published. The comprehensiveness of the additions and the selection generally he regarded as praiseworthy. He would have liked to see a nearer approach to the decimal system in such preparations as tinctures, but the fluid parts by weight could not have been avoided. He regretted the omission of the green iodide of mercury, which is much dispensed. Its rejection will only have the effect of promoting the sale of American pills containing it. The official process for acid hydrobromic dil. is suitable for chemical manufacturers only. He disagreed with Mr. Umney as to the light yellow colour of lactic acid. It can be had colourless, and this character he thinks is one indication of its purity. Acid nitro hydrochlor. dil. and the phosphoric acid are improvements. There are some examples of vagueness in the descriptions, which are unfortunate. Salicylic acid may be one of two articles, so may salicylate of sodium and carbolic acid; aloin may be barb-, soc-, zan-, or nat- aloin; alum may be either potassium or ammonium alum; senna, either Alexandrian or Tinnevely senna; starch, either wheat, maize, or rice starch; and the paraffins are innumerable. This indefiniteness is objectionable, and will often lead to unfortunate results. The error in regard to hydrochlorate of apomorphia was mentioned. The U.S. Pharmacopœia gave it as soluble in 6.8 parts of water; on this authority, he (Mr. Martindale) had stated it was soluble in 7 parts of water. As a curious coincidence the compilers of the Pharmacopœia also fix on the number 7; it should be "soluble in 35 parts of water." The official hypodermic injection of it is 1 in 50 of camphor water, but this solvent has no preservative action on it. A trace of diluted hydrochloric acid keeps it best. For the official citrate of caffeine Mr. Umney recommends sulphate of caffeine. This, according to Watts, is difficult to crystallise, and is easily decomposed by water; the hydrobromate of caffeine is said to be a stable and definite salt. It is in fair demand; so is the valerianate and the sodiosalicylate compound of it. After remarking on chrysarobin, Mr. Martindale referred to tincture of larch bark, tobacco, the official poultices, and many of the enemata as being rarely dispensed. He did not see why nitrate of copper has been inserted, and the three preparations of acetate of iron. The old tincture was rarely used, and kept badly. The official process for charta sinapis is not workable, and might as well have been omitted. Belladonna plaster, if not too strong, Mr. Martindale regards as an improvement, notwithstanding what Mr. Umney says. But he does not know why a complicated mixture of resin and soap plaster, both containing the same ingredients, rather than lead plaster, should be ordered as a basis for this plaster. The process for liquid extract of *Caseara sagrada*, as well as those for syrup of senna and extract and syrup of poppies, are wrong in principle; water takes from these drugs a quantity of inert extractive, which has to be coagulated by spirit and filtered out. Skill is required to work this well—the filtering is the difficulty. The American plan, such as is employed in making liquid extract of coca, is a much better one; it is a kind of fractional percolation with concentration of later percolates to dissolve in the first portion. In making our tinctures we are wasteful of spirit, but in making fluid extracts, or valoids as they have been termed, 1 = 1 of drug, we are wasteful both of material and labour, and we throw the manufacture into the hands of specialists. One part of drug in two fluid parts would generally be more satisfactory, and be within the limits of manufacture by the retail pharmacist. We know, when we are told that a pound of fluid extract contains the



full medicinal value of a pound of the drug, that it is simply impossible. Sulphate of morphine is a new and useful preparation; but pure morphine, which is probably more stable than any of its salts, does not find a place, although it is required for hypodermic injection and solution of bimeconate. By using the pure alkaloid the process is so simple that it is difficult to conceive why the roundabout process of the Pharmacopœia should have been inserted. As the process of dissolving pyroxilin in the acetic ether preparation of cantharides to form blistering collodion was first devised by me, I am at a loss to know why my proportions were not adhered to, and why the preparation is made so viscid. In my published formula I put  $\frac{1}{2}$  oz. to 1 pint of liquor; the B.P. formula has 1 oz. to a pint. The strength of liquor epispasticus, too, appears to have been reduced without a sufficient reason. That the official solution of perchloride of mercury is not a solution of perchloride of mercury I showed in 1870. It contains a double salt, sal alembroth, with excess of chloride of ammonium. The solution is incompatible with common water containing lime. This throws out the mercury as a white precipitate. As it is largely used in hospitals, where distilled water is rarely used for dispensing, much of it must therefore be given in an inert condition. The liniments are improved; opium liniment will be more elegant by being filtered. Phosphorated oil is increased in strength from 1 in 160 to 1 per cent., yet the dose remains the same—5 to 10 minims =  $\frac{1}{10}$  to  $\frac{1}{15}$  grain of phosphorus! These, I am informed, are poisonous doses. The phosphorus pill mass of the late "additions" reappears, with soap to be added when dispensed. It has had my condemnation. Glycerine is ordered by fluid grains in glycerine of tragacanth, by fluid ounces in other formulae, but in compound rhubarb pill we have "glycerine 1 oz.," not *fluid* ounce—and "treacle by weight, about 3 oz." Is the glycerine to be weighed or measured? The formula also gives "2 parts," and of "treacle, 6 parts." I therefore conclude that in this exceptional instance the glycerine should be weighed. But the pills can be compounded with *one-half* the quantity of glycerine, by weight even, without any other excipient. The full quantity of excipients makes a mass, when freshly made, more like a confection than a pill mass. Glycerine and treacle, in my opinion, are neither of them suitable as excipients for compound rhubarb pills. I find that not 4 oz. of excipient, but  $1\frac{1}{2}$  fluid oz. of simple syrup added to the Pharmacopœia quantity of specie is sufficient, and about as good an excipient as can be used, taking into consideration the keeping properties of the pills. The mass is rarely now kept ready made, the specie being much more convenient for dispensing purposes. It is a pity more definite instructions were not given respecting the preparation of nitroglycerine tablets. I consider it important that the nitroglycerine, which is slightly volatile, should be in perfect solution in the fat of the chocolate to fix it. An alcoholic solution mixed with mucilage, chocolate, &c., will not give the same results. Ammoniated tincture of quinine can be more readily made without heat. Quinine wine, too, might have been improved, like the tincture of quinine, by using hydrochlorate *vice* sulphate of quinine. Tincture of chloroform and morphine, the imitation of chlorodyne, is practically Mr. Squire's formula, with four times the quantity of morphine, but it is still deficient in this essential ingredient; administered as a hypnotic, for which purpose the original preparation is often given, the maximum dose, 10 minims, containing  $\frac{1}{48}$  grain of hydrochlorate of morphia, will only lead to disappointment. Although I am not in favour of compound preparations, yet I know not why Mr. Umney should object to Parrish's or Easton's syrup, or tincture of chloroform and morphine having a place in the Pharmacopœia any more than to compound colocynth or compound rhubarb pills. I cannot agree with Mr. Umney, either, that soft paraffin, having as low a melting point as 95° F., should not have been admitted into the Pharmacopœia. This one with the "fanciful name" is the best of the series as a lubricant, and as a basis for soft ointments. Soft paraffins having this melting point *only* should, I think, have been admitted, as a type for manufacturers to aim at.

Mr. Moss, speaking from notes, but without reading a paper, contributed comments on the following:—

*Antimonium Sulphuratum*.—He had worked on this some years ago, and had pointed out that the characters given in the 1867 Pharmacopœia could not be obtained from the official formula. His suggestion of adding sulphur had been

adopted. *Ferri et Quinine Cit.*—He was convinced, from what Mr. Umney and others had said, that it was not possible to make from the official formula a salt containing 16 per cent. of pure quinine. But he would not have spontaneously questioned the Pharmacopœia directions for drying. When the Pharmacopœia said the residue in testing was to be dried until it ceased to lose weight, he should consider that, if there was a process whereby it would continue to lose weight, that should be adopted. *Syr. Ferri Iodid.*—He agreed with Mr. Umney as to the final weight and specific gravity, and considered that a syrup with less than the official weight of sugar would keep well. *Cinchona Sharings*.—As these constitute about 75 per cent. of the imports of red cinchona bark, it would be advisable to officially recognise this form. *Emp. Belladonna*.—He preferred the new plaster, and did not agree with Mr. Umney as to the strength, which he considers, as compared with the old plaster, as 14 to 1—not 2 to 1, as Mr. Umney regards it. *Ext. Cinchona Liquid*.—In this he had obtained a better result from the Pharmacopœia process than Mr. Umney had obtained. Working with a bark containing 5.2 per cent. of alkaloids he had 92 fl. grains out of a possible 104 fl. grains. This extract, he thought, was a great improvement on the old formula, and if Dr. Redwood would omit it from the next edition, he would hear such a chorus of regrets as would cheer his heart. Since the publication of the new Pharmacopœia he had heard the old process spoken better of than ever before, on the principle, he supposed, of *de mortuis nil nisi bonum*. *Ext. Ergot. Liq.*—With the larger proportion of spirit this preparation clears more quickly, but makers would willingly wait rather longer for the clearing if they might use less spirit. *Ext. Opium Liq.*—He agreed with Mr. Umney that "opium" should be substituted for "powdered opium" in describing this process. *Extract Pareira*.—He did not agree with Mr. Umney as regards this, but thought it an excellent preparation. *Vin. Ipecac.*—He considered the new preparation a decided improvement. It is true there is great difficulty in drying the extract, consequent on the large amount of pectic acid separated by acetic acid. *Caffeine Citras*.—This seems to be a valuable compound, on account of its solubility. *Chrysarobinum*.—As a practical commentary on the indefiniteness of this body Mr. Moss quoted from a price-list, which gave under "araroba," as a synonym, "chrysarobin"; under "chrysarobin" it said "see Goa powder"; under "Goa powder" it gave, as a synonym, "araroba." Mr. Moss commented briefly on some other of the Pharmacopœia preparations, and added his testimony to the general superiority of the new Pharmacopœia over its predecessors. He was warmly cheered by those who understood the allusion when he asked for information as to the date on which the Pharmacopœia was published. He had himself obtained a copy on September 2. On the same day appeared a pamphlet from a well-known house (not Mr. Umney's) giving a synopsis of the alterations, so that, he presumed, the work must have been published, to the extent of at least one copy, some ten days earlier.

The PRESIDENT then read some notes which had been sent by Mr. Edward D. Gravill. *Ext. Nucis Vomica*.—If the B.P. directions are followed the product is more like thick treacle than a suitable pill-mass. Finely-powdered milk sugar, added before the final evaporation, gives a very presentable product. *Ointment Base*.—The new ointment base, consisting of hard paraffin 1 part and soft paraffin 3 parts, is too hard. The proportion of 1 to 9 is more satisfactory at this season of the year. *Hypodermic Injection of Morphia*.—The statement that the old form contained 1 grain of acetate of morphia in 12 minims and that the present form contains 1 grain in 10 is somewhat misleading, as the former calculation was based upon anhydrous acetate, and the present upon crystallised acetate containing three molecules of water of crystallisation. The two injections are, therefore, nearly of the same strength, 10 minims of the 1885 injection being equal to 10.45 of the injection occurring in the 1874 additions to the 1867 B.P. *Pilula Phosphori*.—In constructing the formula for the above pill-mass the absorption of moisture during manipulation does not seem to have been taken into consideration. The writer had found the B.P. quantities yield 210 grains, instead of 180 grains, as was apparently intended, so that the final product when mixed off with curd soap, as directed, does not contain  $\frac{1}{30}$  grain of phosphorus in 3 grains, as stated, but  $\frac{1}{35}$  grain. The absorption of moisture may not



always be quite constant, but it was fairly so in three batches made from the same constituents. *Extractum Cinchona Liquidum*.—The writer had found a loss of about 15 per cent. of alkaloids in working the B.P. process. He recommended as preferable the following:—The marc exhausted with an excess of hydrochloric acid and water, and the alkaloids precipitated from the acid solution with caustic soda. These collected on calico, washed to get rid of alkalies, and converted into neutral hydrochlorates in as little water as possible. These added to and evaporated with the bulk before estimation. By experiment the product obtained was equal to 96½ lbs., or a loss of only 2½ lbs. on the 99½ lbs. expected. As the alkaloids must to some extent exist in the B.P. preparation in combination with hydrochloric acid, there does not seem any objection to the addition of these alkaloids as neutral hydrochlorates; they do not increase the acidity of the product, and appear to be the best means of utilising the unexhausted marc.

Mr. FLETCHER, on the invitation of the President, commenced some comments on the Pharmacopœia, but, proceeding to urge the importance of pharmacists being associated with physicians in the compilation of the Pharmacopœia, he was reminded by the President that this meeting was hardly the proper place to enter into the political aspect of the question. They looked to Mr. Fletcher for some practical criticisms. Mr. Fletcher then remarked on the carelessness of the editing of the Pharmacopœia, indicated by such instances as "Farina tritici" under the F's, and "Lini farina" under the L's. Under the succi, too, he found five juices, and elsewhere were found *mori succus* and *limonis succus*. He commented sarcastically on the processes given for some chemicals, such as that for making citric acid from 4 pints of lemon-juice, bromide of potassium from 4 oz. of bromine, and others. With regard to the process for liquid extract of cinchona, and Dr. Redwood's statement that it was not intended to take out all the alkaloid, he wondered what was the object of making a liquid extract at all if not to take out all the alkaloids. Referring to the formula for citrate of iron and quinine, respecting which he had written elsewhere, he said it was a matter of very small importance to the pharmacist who operated with the Pharmacopœia quantities of 1 oz. of quinine whether he lost a few grains more or less; but in the case of manufacturers, who, perhaps, in the course of the year used from 20,000 to 30,000 oz. of sulphate of quinine in making citrate of iron and quinine, it was a matter of considerable importance if they lost 2,000 or 3,000 oz. of quinine, which was what they would lose if they had to adopt the Pharmacopœia process. The whole difficulty might have been avoided if citrate of quinine had been introduced instead of sulphate of quinine. As to the test, he maintained that from 14 per cent. to 15 per cent. was the utmost quantity of quinine that could be extracted from citrate of iron and quinine made according to the Pharmacopœia process.

Mr. BLAND asked whether the alteration of the quantity of iodide of potassium in the tinctura iodi was intentional, or whether it was a misprint.

Dr. REDWOOD continued his reply, confining himself chiefly to Mr. Umney's paper. The subjects he took up were the following:—*Syrup of Iodide of Iron*.—Mr. Umney said that in this case an alteration was made, which was unnecessary and useless. In this formula the compilers had been aided by a practical pharmacist, who had had great experience in its preparation, and who suggested as a small modification in the process that, after forming the syrup by the solution of the sugar in water, a small portion should be heated in contact with the aqueous solution of iodide of iron. That was not altogether a new idea; the object was that the sugar should be to a slight extent changed through the influence of the little hydriodic acid present in the solution of the iodide of iron, that change being the conversion of the cane sugar into the condition of glucose, which had a more powerfully preservative influence on the iodide of iron than the cane sugar. Mr. Umney, who was a highly-experienced practical man, might always succeed without resorting to that expedient in obtaining a syrup of iodide of iron which would never in the slightest degree change colour; but such had not been the universal experience of pharmacists. *Citrate of Caffeine*.—It was stated that this ought not to have been introduced into the Pharmacopœia, but he was informed by those who largely supplied it commercially that for every

pound of caffeine which was supplied in commerce there were 20 lbs. of citrate of caffeine sold. This indicated that citrate of caffeine was in demand, and was prescribed, and the duty of the Pharmacopœia was to define as nearly as possible the articles which physicians were in the habit of prescribing. *Citrate of Iron and Quinine*.—With regard to this Dr. Redwood was now disposed to think that probably the proportion of quinine that would be present in the article when it had been made according to the instructions of the Pharmacopœia would be slightly under that which they indicated. After the data given by Mr. Umney and Mr. Fletcher, he (Dr. Redwood) came to the conclusion that the subject of citrate of iron and quinine must stand over, and that it merited a more searching examination than it had yet received; but he hoped the Pharmacopœia standard of 16 per cent. of quinine would be adhered to. It was a preparation that would only be produced by manufacturers upon a large scale, and manufacturers knew how to "milk the cocoanut" and get the requisite quantity of quinine into the product. *Aromatic Spirit of Ammonia*.—They had been led into a slight error with regard to sp. gr. by the author of the preparation, but that would, of course, soon be rectified. *Dialysed Iron*.—The speaker was disposed to reverse the unfavourable opinion he had formerly expressed as to this preparation. His later experience had told decidedly in its favour. Dr. Redwood then replied to Mr. Umney's criticisms of the standardised drugs. The dryness of extract of opium and the thinness of extract of nux vomica seemed to him very slight defects in comparison with the advantage of having these preparations standardised. If extract of opium were, as Mr. Umney said, dry enough to be powdered, let it be powdered. It could not be in a more suitable condition. Then, as to the definition of the degree of disintegration of certain drugs. They were complimented for what they had done, but they were told that the work was imperfectly done. Dr. Redwood then mentioned several tinctures where it was not necessary to indicate the degree of comminution, referring to orange-peel, calumba, cantharides, capsicum, chiretta, cinnamon, and colchicum. During Dr. Redwood's remarks on these substances Mr. Umney more than once tried to direct his attention to the four substances he had specially mentioned, but Dr. Redwood ignored the interruptions.

Before Mr. Umney replied, Professor ATTFIELD wished to make a very few remarks concerning the errors in the Pharmacopœia. However insignificant such errors might be, it was important that they should be corrected as soon as possible. The errors referred to by Professor Attfield were chrysarobin, which would be corrected so that the characters "a light brownish yellow, minutely crystalline powder" would be prefaced by the words, "as purified by solvents." Under liq. ammon. acet. fort. the quantity of carbonate of ammonium, given as 17½ oz., was a misprint for 15½ oz. Under liq. ammon. citrat. fort. the final product as originally planned was 24 oz., but this had been misread 20 oz. As 24 oz. the sp. gr. would be right. Errors must occur even in a Pharmacopœia, and lists of errata had been published for all Pharmacopœias. He might mention he had counted twenty slight clerical errors in Mr. Umney's paper. The professor then produced a large album of cuttings, which contained records of the researches of pharmacists since the 1867 Pharmacopœia, and which had been thoroughly examined. He intended, he said, to publish an account of these researches at some future time, and it would be seen from that how thoroughly this Pharmacopœia was the pharmacists' Pharmacopœia.

Mr. UMNEY then replied, confining himself chiefly to Dr. Redwood's comments with regard to the proportion of iron in ferri ammon. cit. Dr. Redwood had denied the statement that the previous Pharmacopœia had demanded that the salt should yield more than 27 per cent. of iron.

Dr. REDWOOD interposed the remark that the Pharmacopœia said it should not yield less.

Mr. UMNEY said it was not necessary to quibble about words. The salt could not yield more ferric oxide, because there was not more than that proportion in the persulphate solution ordered. It was twelve years ago since he (Mr. Umney) had brought that forward, and Dr. Redwood had then said he would take an early opportunity of refuting his statement, but he had not yet done so. He had again made ammonio citrate of iron containing over 32 per cent. Redwood, in his com-



mentary, had himself said it should contain 34 per cent., and the Pharmacopœia might very well have allowed 32 per cent. So with tartarated iron. In this formula he had suggested the use of tartaric acid because he had known persons fail to make it from cream of tartar, and some manufacturers preferred to use tartaric acid. They thus avoided the production of tartrate of calcium. He apologised for having spoken of the therapeutic value of cherry laurel water, but in that respect he had followed Dr. Redwood's lead, who in 1869 had said that the preparation was an "abomination." If cherry laurel water was standardised one day, it would be something different the next day; and it was for that reason that he thought that it might be expunged from the Pharmacopœia. On the subject of citrate of iron and quinine, Dr. Redwood had just stated that this required investigation. Twelve years ago he undertook to give an early contradiction to his (Mr. Umney's) paper of that period. Perhaps, by the time the millennium arrived, Dr. Redwood would have come to some conclusion as to what the official citrate of iron and quinine was. In speaking of the presence of 16 per cent. of quinine in citrate of iron and quinine, Dr. Redwood had said that manufacturers could make citrate of iron and quinine so that it should contain that percentage, as they knew how to "milk the cocoanut." Everybody knew that sulphate of quinine contained not only water of crystallisation, but adherent water; and everyone would admit that with the proportions ordered in the Pharmacopœia the citrate of iron and quinine must be very carefully made to yield 15 per cent. of anhydrous quinine. If it was required that makers should put quinine to yield 16 per cent., of course they could put it in, but it must not be done upon the understanding that the Pharmacopœia was right when it stated that it already contained 16 per cent. In the meantime pharmacists might be threatened by public analysts. On the fluid extract of cinchona bark, Dr. Redwood's remark that "Of course something must be said against it, because it is mine," was really unworthy of Dr. Redwood. He (Mr. Umney) had said that the Pharmacopœia preparation was an elegant one, and Dr. Redwood ought not to have presumed that he was speaking sarcastically. He thought that there should be a statement in the Pharmacopœia that the bark used in the preparation should not contain less than a certain percentage of quinine. Dr. Redwood had spoken of a "judicious selection of bark," but were they to suppose that pharmacists would make a judicious selection when the Pharmacopœia authorities themselves did not know what 75 per cent. of the bark which came into this country consisted of? Concerning spirits of nitre, he had used Dr. Redwood's method for some time past, and he found that it yielded a product which was excellent in quality, and contained a considerable quantity of hyponitrous ether. He only regretted that Dr. Redwood had not left well alone. The Pharmacopœia now said that the sp. gr. should be from 0.840 to 0.845. Evidently the compilers were not very sure of it, and therefore feared to be entrapped. He thought that it was a case almost on all fours with the official sal volatile. It was a thing tried in a glass retort working with ounces, instead of on a large scale operating on gallons. If one took a glass retort of a litre capacity, the sp. gr. of spirits of nitre made by Dr. Redwood's process would be 0.841; but because he (Mr. Umney) had said that the Pharmacopœia ought to have kept to its 0.845, it was rather caustic on the part of the Professor to say that they must not take it as "all gospel" which he (Mr. Umney) said. He had examined out of curiosity during the past fortnight fifteen trade samples, representing, he believed, the whole of the manufacturers of Great Britain, and in no one case could he find a spirit of nitre of 0.840 sp. gr. containing the percentage of hyponitrous ether. Dr. Redwood might have the samples and examine them for himself. With regard to extract of opium, it would have been better if Dr. Redwood had said either "we did not try the process at all, but copied it from a book, which evidently led us into error," or else, "we intended that crude opium should be used, and not powdered opium." He (Mr. Umney) had suggested that if the word "crude opium" was substituted for "powdered opium," the standardisation formula would do very well. As to the dividing of drugs into a certain state of powder, Dr. Redwood went round and round the subject, but avoided the four substances which he (Mr. Umney) had named. He had mentioned ginger, cinnamon, cubeb, and bael. Dr. Redwood had told them not to buy cinnamon

from those wholesale men who dried it and ground it. He (Mr. Umney) never dried the cinnamon he ground. There was in this Institution a very peculiar notion as to grinding drugs. He had heard that it had been stated in this lecture theatre by one of the Professors that wholesale druggists ground oil with rhubarb to give it the proper colour. Such statements were not worthy of the Professors who made them. If they did not know what went on in the wholesale trade they should learn, and he should be very glad to see them in his firm's drug-mills, that they might watch the processes as they were carried on. It was directed that the cubeb was to be in powder, and there was no statement as to whether the powder was to be fine or coarse. He reaffirmed his statement that the good begun in the preface did not "seem to have been completely carried out in the detail," or, if so, why, in the case of bael, was there no direction as to the state of division? The direction was to take "bael fruit," but that drug was found in slices as large as the top of a tumbler. Mr. Umney added a few observations on the other remarks which had been made in the course of the discussion.

The PRESIDENT briefly summed up, expressing his belief that it would be the general opinion that Professor Redwood had not been willing to attach sufficient weight to the researches of men younger than himself.

## OBSERVATIONS ON THE BRITISH PHARMACOPŒIA.

By CHARLES SYMES, PH.D.

(Paper read before the Liverpool Chemists' Association.  
Slightly condensed.)

IN 1864 the first British Pharmacopœia appeared. Many were its shortcomings, and, seeing the different views which had to be reconciled and the concessions which had to be made, there was for some of them excuse. The Council of the Pharmaceutical Society requested its professors to deliver a course of lectures on the new work, and no one proved a more able and severe critic than Dr. Redwood. He found that the solution of acetate of ammonia was not the ghost of its former self: the processes for preparing glacial, acetic, and hydrochloric acids did not yield these acids at all; that the nitric acid (sp. gr. 1.500) was the most inconvenient, the sulphuric acid an impossible, product of the processes given; that the carbonate of potash was not that of the analytical chemist, nor the salt of tartar of commerce, or any other form of carbonate of potash to be found anywhere, except in chemical books. In preparing ferrum tartaratum "the mode of operating given would be practically impossible." The spirit of nitre would be all right, but the nitrate of soda ordered in its preparation was not a commercial article, and the process given for its production did not yield the article required. The process for pyroxylin yielded an insoluble cotton, and there was something wrong with decoctions, extracts, infusions, spirits, and tinctures.

Professor Bentley added some criticisms, and two lectures were delivered by Professor Atfield, who first answered some of the objections raised by the senior professor, and then proceeded himself to point out other faults. The next stage in the history of the book is well known—it had to be revised, and the severe critic of the first edition became the editor of the second. This, although not perfect, was a great improvement on its predecessor, and after a period of eighteen years a third edition makes its appearance. The Medical Council, having ignored the right of pharmacists to official recognition, have employed the three professors of the Pharmaceutical Society to accomplish the work.

In my opinion no other professors in the United Kingdom were better capable of doing it. They are men we all know and esteem; men of undoubted ability and much experience. In criticising their production we do so in the hope that they will accord to us the same privilege which they claimed for themselves when they were in a similar position. We all feel that not to professors alone should a work of this kind be entrusted, although they would constitute an important element in a suitable committee.

On running through the book it is evident that it bears too much the stamp of the library and too little of the laboratory or workshop. It is true that many new processes and



suggestions, which have been published from time to time, have been adopted; when these have been perfect the results have been satisfactory, but when they have been imperfect or have contained errors, such imperfections or errors have been copied, and the results have been disastrous. There have been omissions, many of them with apparently insufficient discrimination; mercurous iodide, gentian mixture, and dulcamara are examples. The two former have probably been struck out of the official list because the members of the Pharmacopœia Committee have not been in the habit of prescribing them; and the latter because no good and efficient preparation of it existed in the Pharmacopœia. In my experience green iodide of mercury is prescribed twenty times when the red iodide is prescribed once, and mist-gentiana is by no means an uncommon ingredient in a prescription. The U.S. Pharmacopœia contains a fluid extract of dulcamara which well represents the drug, and is a good and efficient preparation.

Pharmacists who have prescriptions from a large number of medical men passing through their hands, and who can refer to their prescription-books, stock-books, and laboratory journals, are surely capable of offering an opinion as to what modern remedies are good and substantial ones. In the new Pharmacopœia we look in vain for hamamelis virginica, a drug which has been steadily prescribed for years. To this I may add prunus virginiana, convallaria majalis, guarana, euonymin, gingerine, or oleo-resin of ginger. There are others which may well have occupied a secondary position, constituting a secondary list, such as camphor monobromide, iridin, damiana, capscine, paraldehyde, &c. We find rhamnus frangula, the use of which is decidedly on the decline, but which is, no doubt, still prescribed by those who have not made themselves acquainted with the greater efficacy possessed by rhamnus purshiana (cascara sagrada). This latter has, however, become official also, both the solid and the liquid extracts being included. The former is directed to be prepared by means of a dilute alcoholic, the latter by an aqueous menstruum. If it is intended to extract the active principles of the bark in both cases, it would appear that one must be wrong, but perhaps someone may be able to explain. My experience is that dilute alcohol will extract the resinous principles, but that water will not. For the extract the bark is to be in No. 40 powder, and after treatment with dilute spirit the percolation is to be continued with water. I would like to ask you, gentlemen, who have worked with cascara sagrada, whether you think this formula is the result of experiment or experience? In the preparation of quinine wine the sulphate might with advantage have been replaced by the more soluble hydrochlorate; but even if the sulphate be retained the formula is otherwise bad. The citric acid, which makes the wine a sour, unpleasant one, should have been omitted; the quinine could have been heated with a small portion of the wine, in which it readily dissolves and forms a clear solution when added to the bulk. Had the hydrochlorate been used, neither citric acid nor heat would have been necessary.

Extract taraxaci liq. is, in my opinion, a valuable addition, and would have been more so had the directions been more explicit, and the formula somewhat modified. The menstruum consists of proof spirit, of which we are to take 4 pints, and water a sufficiency. The spirit is mixed with 40 oz. dandelion-root in No. 20 powder, allowed to stand forty-eight hours; 20 oz. of liquid pressed out, the remainder of the water added, and allowed to stand forty-eight hours; liquid pressed out, and evaporated to about 18 oz.; this is added to first liquor, and the whole made up to 40 oz. by means of distilled water. Now, if after the first maceration pressure be used, 40 oz. of liquid will be obtained, and the process will be at an end as far as quantity is concerned, but not so the exhaustion. As to the second maceration, some definite quantity of water must have been intended, but the fact has been overlooked. The most simple, and a very good formula, is that of the U.S. Pharmacopœia. In it, however, more spirit is used than is necessary, and I would suggest the following:—Macerate 40 oz. dandelion-root in No. 20 powder, with 2 pints of proof spirit for forty-eight hours, press out 20 oz., and set aside. Break up the marc, and well moisten it with a mixture consisting of 18 oz. water and 2 oz. glycerine. Place in a percolator, and pour on water until 4 pints have been collected. Evaporate this to 1 pint, mix with first liquor, set aside for forty-eight hours, and filter. On the

large scale the evaporation would, of course, be conducted in a still, so as to recover the spirit.

Why sarsaparilla should be in No. 40 powder for preparing the fluid extract I am at a loss to understand, seeing that the medicinal properties exist in the certical portion. As solid extract of jaborandi is introduced, we must assume that it is in demand somewhere, but the fluid extract, which is more familiar to us, has been omitted. Possibly it was considered that the tincture, which is rather concentrated, would suffice. The liquid extract of liquorice would have been better with more spirit therein, say 20 per cent at least, as in warm weather it is very liable to ferment. If it is desirable to make liquid extracts from the solid, as is done in some other instances, then it seems to me that it would have been well to do so here, seeing that the processes for operating are in both preparations the same. All of us who advocate the use of freshly-prepared infusions will welcome the shortening of the time during which they are required to stand before use. This change, however, is not unaccompanied by a risk of want of uniformity, as now that the time is shortened to half-an-hour, if the ingredients are not all cut very small the exhaustion will be incomplete. This fact is recognised in some cases, in which the condition of the ingredients is defined.

I am far from believing that the same degree of comminution could be advantageously applied to *all* drugs, but I feel satisfied that much more uniform and satisfactory results would have been obtained had calumba, cloves, cascarilla, catechu, chiretta, cinchona, cusparia, kousso, digitalis, ergot, gentian, orange-peel, jaboranda, rhatany, matico, and quassia been ordered in No. 10 powder for preparing the infusions of these drugs. I am quite aware that calumba when powdered may not produce so bright an infusion as when cut; but I think it would not compare unfavourably in this particular with some of the infusions which are to be prepared from *fine powders*.

Of tinctures I will only mention that of fresh orange-peel. Some years ago the use of this was advocated by myself and others, and I suggested a formula for its preparation. The tincture has been adopted but the formula has not, otherwise it would be much more largely used than it is at present. It is a well-known fact in vegetable histology that treating cellular tissue with rectified spirit or alcohol tends to harden it; and that is precisely what occurs when the Pharmacopœia process is followed. A fair proportion of the essential oil is dissolved from the surface of the peel, but much of the extractive and pleasantly bitter matter remains. In any future edition or correction I would suggest:—

Bitter orange peel, cut small and chopped ..	6 oz.
Distilled water .. .. .	4 fl. oz.

Macerate twenty-four hours with occasional stirring then add:—

Rectified spirit .. .. .	12 fl. oz.
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Macerate for seven days with occasional stirring, press, and filter.

Stavesacre ointment is ordered to be made from the crushed seeds, for which there may be some reason, of which I am not aware; but in June 1877 Dr. Balmanno Squire pointed out that the oil contained all the properties of the seeds as a parasiticide and that an ointment prepared from it was more desirable than that from the seeds, since which time it has usually been prepared as indicated by his experiments. From a pharmaceutical point of view it is certainly preferable to use the oil on account of the greater facility with which it can be employed. Ointments not frequently in demand are liable to go rancid by long keeping, and every facility should be given for preparing them as required, consistent with retaining full medicinal efficacy. Two oleates have been made official, viz., that of zinc and mercury, each containing 10 per cent. of the respective oxides. They are designated oleates of the metals, and I, therefore, scarcely see where the preparations of the same name containing 20 per cent. of the oxides come in. In the case of mercury the latter strength is frequently prescribed, and I am afraid some confusion is likely to arise from the name given to a weaker preparation, implying that it is stronger. Thus we have an unguentum zinci oleati, which appears superfluous, seeing that the so-called oleate is an ointment containing 10 per cent. oxide, and that it is rarely used in a non-dilute form.



Paraffinum durum is a useful addition to the Pharmacopœia, so also is the paraffinum molle. The range of melting-point given for the hard paraffin is, however, far too wide for uniform results to be obtained. Commercial specimens I have found to melt at from 108° to 140° Fahr., but ointments prepared with the same proportions of these vary both in hardness and character. Those samples melting at or about the higher temperature are, in my opinion, quite unsuitable for preparing ointment at all. They give to the product a crystalline character, and there is always a tendency to separate out from the soft portion in hard granular masses. The range of temperature at which it melts should have been from 110° to 120° Fahr., the best results obtained on mixing being by the use of the softer. Some diversity of opinion exists as to the range of melting-points given for the soft paraffin or petrolatum. I believe those of the Pharmacopœia are well chosen. The lower temperature, 95° Fahr., is the melting-point of "the article with a fancy name," which has been so much advertised as to have fixed it in the minds of the medical profession and the public. I have often found this complained of by medical men as being too soft, especially in summer; and, to correct this, hard paraffin is frequently prescribed with it. Then there are substances (also sold under fancy names) which are mixtures of hard paraffin and purified lubricating oil, and some said not to be so prepared, but all of which have more or less a crystalline character, and can be made to melt at any desired temperature. There is, however, now no difficulty in obtaining a good natural petroleum jelly having a melting-point of from 100° to 106° Fahr. The United States Pharmacopœia gives 104° Fahr., and this is really the best consistence for general use.

That the description of chrysarobinum refers to araroba or goa powder, and that the characters and tests refer to chrysarobin (commonly known as chrysophanic acid), is obvious, and has already been commented on. Araroba as it arrived in this country some years ago was lighter and more yellow in colour than is now obtainable, and this fact may have led the editors of the Pharmacopœia into error on this point. Araroba is still largely used in India and other parts of the world, but in this country the chrysarobin obtained by purifying the crude product by solution in benzene is the article now used.

There has, at present, been insufficient time in which to test the keeping qualities of the ipecacuanha wine by the new formula; but the old wine was fairly satisfactory if sherry containing sufficient alcohol to preserve it was used in its preparation. Presuming the new wine to be necessary, and remembering that someone, who prepared it according to instructions given, took half-ounce doses before dinner without subsequent inconvenience, I am led to suggest the following modification, which, as far as I can judge at present, gives satisfactory results. Towards the end of the evaporation, add a little glycerine; this admits of heat being continued until nearly the whole of the acetic acid has disappeared without drying or destruction of the emetine present.

I always disagreed with the formula for pil. phosphori in the late Pharmacopœia, and, as a rule, medical men were careful not to prescribe it. It seems to me that the present formula is an attempt to cover a fault rather than acknowledge it. Mr. Gravill has recently pointed to a serious error in the stated strength due to the adoption of water during preparation to the extent of one-sixth the weight of the ingredients used.

In my opinion the formulæ for Easton's and Parrish's syrups should have been included; they are both largely prescribed and sold, and there is a good deal of trash sent out under the name of the latter.

It would be difficult for any editors to produce a work of this kind which would please everybody or be without fault, but I hold that the claim which we have made as pharmacists to official representation on the Pharmacopœia Committee is strongly supported by the results of this issue. This work is not one of necromancy or the occult sciences, hence there was little reason for such profound secrecy concerning it up to the day of its publication and becoming law. Before publishing the U.S. Pharmacopœia proof copies are sent out with a courteous request for suggestions. Some of the Pharmacopœia funds which the Medical Council hold might with advantage be spent in this way.

## THE BRITISH PHARMACOPŒIA AND ITS CRITICS.

By PROFESSOR ATTFIELD, F.R.S., one of the three Editors of the Pharmacopœia.

IN the following paragraphs the writer has endeavoured to reply to all the pharmaceutical criticisms on the British Pharmacopœia, 1885, which have up to the present time been published in the journals of pharmacy.

### THE PREFACE.

PROPORTIONAL PARTS.—Stephenson thinks their introduction needless, Martin regards the insertion as a compromise productive of evil, Umney complains that they do not inform at a glance like those of the Codex, Cracknell approves of the present preliminary partial introduction. The Preface claims no more for this method of setting out quantities of materials in certain cases than that it is an attempt or experiment. According as it commends itself or otherwise to those who use the Pharmacopœia, the plan can in future editions be either developed or abandoned. To inform at a glance the parts must stand alone and have simple relationship like those of the Codex.

DISINTEGRATION OF DRUGS.—Official recognition of the use of sieves of particular sizes of mesh is commended by Martin, Botham, Millhouse, and Umney, but the three latter would extend the direction to use a given sieve to many additional drugs. The obvious reply is that where such use is not enjoined the judgment of the operator is relied on. If in any of these latter cases the expediency of introducing this plan of ensuring the uniformity of mechanical treatment of a drug should be demonstrated, the method can be extended in due time.

SUBSTANCES MADE AT CHEMICAL WORKS.—A. E. Robinson would omit the details of the processes for the preparation of chemical substances made only on a very large scale in a few factories. Such a mode of treating the paragraphs in question has been observed as regards newly-introduced remedies and some others. Howard would have carried the treatment further. In such matters most of those who use a pharmacopœia are conservative, only a few radical. *Festina lente* has to be one of the mottoes of compilers of a pharmacopœia.

TESTS.—Burnett and E. Davies would have the *modus operandi* of tests inserted. A pharmacopœia is not and cannot be made an educational handbook. The Editor of the *Pharmaceutical Journal* would, in certain cases, specify the required percentage of active principle of the drugs and leave the mere method of testing to the judgment of the operator—as, for example, in the case of citrate of iron and quinine. Here commensurate skill is assumed, and even the said Editor only says that such a competence "should" be possessed by the pharmacist. When all pharmacists are analysts the suggestion may be further considered.

NOMENCLATURE.—Martindale objects to the giving of one name to two or more medicinal agents, and wants to know which of the two sennas he is to use, which of the three starches, which of the two alums, which of the innumerable paraffins, which salicylic acid, which carbolic acid, which aloin; and regrets that the Pharmacopœia authorities have not in each of these cases given an asterisk to guide him. But these are not cases in which one name is given to two or more *different* medicinal agents; the agents as medicines are practically one and the same, and therefore one name practically suffices. Do pharmacists generally, and dispensers particularly, really need to have their judgment and discretion circumscribed in the manner desired by Martindale, and in so simple a matter as this to have their own footsteps, as well as his, guided by a star?

DOSES.—Differences of opinion having been expressed on this subject, the writer has been requested to draw attention to the following extract from page xiv. of the prefatory matter of the Pharmacopœia. Respecting doses, "they are not authoritatively enjoined by the Council, and the practitioner must rely on his own judgment and act on his own responsibility in graduating the doses of any therapeutic agents which he may wish to administer to his patients."



## THE TEXT.

**ACETUM SCILLÆ.**—Conroy thinks this is too weak in acid for stability, and would add more. Millhouse says it would keep better if of double strength. Abraham, a third pharmacist, does not think it too weak for stability, and that more acid would seriously alter its character. This is one of the numerous cases in which the critics, not yet being agreed, their criticisms neutralise each other and therefore call for no reply from the writer.

**ACIDUM ARSENIOSUM.** E. Davies thinks, should be called an anhydride, but he does not offer prescribers a Latin equivalent. "Arsenious anhydride" is already given as a synonym, and it is described as an anhydride in the text.

**ACIDUM BENZOICUM.**—A. E. Robinson says a test for cinnamic acid should have been included. Without further physiological research this would seem to be an unnecessary refinement, for Erdmann and Marchand state that each as a medicine is converted into hippuric acid.

**ACIDUM CARBOLICUM.**—The official boiling-point is "not higher than 183.3° C." Umney would have it 183° to 184°; E. Davies, 182°; Symes thinks the editors wise in requiring only medicinal, not chemical, purity. Again the critics differ.

**ACIDUM HYDROBROMICUM DILUTUM.**—Abraham leans to the old weak, highly impure, Fothergill acid. Ward would make it by another process; Burnett by still another. Conroy, Umney, A. E. Robinson, and Martindale commend that given by the British Pharmacopœia. The process is by Fletcher, who, doubtless before noticing the presence of his own child, said, as one of the concluding remarks to a letter in the *Pharmaceutical Journal*, "no one thinks of looking for common sense in a Pharmacopœia." This is *more suo*, and perhaps may be excused. Such a "trenchant remark" and such "censure" would probably not have been offered a month later.

**ACIDUM LACTICUM.**—This is officially described as "colourless." Umney says "pale yellowish" would be more accurate. Martindale says it can be had colourless in commerce.

**ACIDUM NITRO-HYDROCHLORICUM DILUTUM.**—The process for this is somewhat changed as suggested by the unquestioned researches of Tilden, but Maben thinks the change not worth making.

**ACIDUM OLEICUM.**—Why does Umney charge the Pharmacopœia with defining this as "odourless, tasteless, and nearly colourless"? The official characters are "a straw-coloured liquid, nearly odourless and tasteless."

**ACIDUM SULPHURICUM AROMATICUM.**—Maben insinuates that the specific gravity was got by calculation. It was got, wrongly or rightly, by experiment. Stephenson sees in the use of tincture of ginger and spirit of cinnamon, in place of the crude drugs, an inconvenient change; while Conroy would use tincture of cinnamon for the sake of its colour and aroma. Maben, on the other hand, says this acid is less troublesome to prepare than the old; Conroy, too, thinks it a decided improvement; Abraham says the taste of new and old are practically identical; while Millhouse regards the new as agreeable, satisfactory, and easily made; Martindale wishes it to be converted into ethyl-sulphuric acid.

**ACIDUM SULPHUROSUM.**—Umney's strength for a 5 per cent. acid was 1.027; but his colleague Tyrer admits that Giles and Shearer's results were superior to their own. The specific gravity given by Giles and Shearer (1.027) is adopted in the Pharmacopœia.

**ADEPS PRÆPARATUS.**—While praising the improvement in the process, Abraham and Conroy would strain the melted fat through something finer than flannel, but do not specify the material. Now there is flannel and flannel; and Willmott has demonstrated the damage done to lard when exposed to the oxidising influences at work during slow filtration.

**ÆTHER ACETICUS.**—Umney rightly intimates that faults in the old process were pointed out by himself. He might have added that most of the improvements in the present process are those published by Inglis Clarke. A. E. Robinson makes the probably useful suggestion that the acetate of sodium should be dried and fused, and that the anhydrous salt should also be employed as the final desiccating agent.

**ALCOHOL ETHYLICUM.**—Abraham and E. Davies regret the lowering of official requirements from 99½ to 98 or even 99 per cent. It was the result of experimental investigation as to an "absolute alcohol" that could be obtained with reasonable facility, and yet be sufficiently "absolute" for official purposes.

**AMMONII BROMIDUM.**—Burnett says this salt is more cheaply made from ferrous bromide and ammonium carbonate. There is no reason why he or anyone else should not so make it. The Pharmacopœia simply states that it "may" be formed by neutralising hydrobromic acid with ammonia. (See the Preface.)

**AMYL NITRIS.**—A. E. Robinson would like to have had details for its production and more precise tests. A practical paper, showing how his wishes can be accomplished, would be welcome.

**ANTIMONIUM NIGRUM PURIFICATUM.**—E. Davies and Conroy criticise the official means of detection and removal of arsenium. Here again research is required, which shall include the determination of the extent to which the article is now liable to contamination by compounds of arsenium.

**ANTIMONIUM TARTARATUM.**—E. Davies suggests a too impractical and too theoretical Latin name for tartar emetic, namely, *Antimonii et potassii oxytartras*.

**APOMORPHINÆ HYDROCHLORAS.**—There is some difference of opinion as to the relation of this substance to solvents. In place of the present actual figures relating to solubility, Dot's more general terms "completely soluble in water and in spirit" would, perhaps, have been preferable. Martindale admits he has made a mistake "in another place" in stating the solubility in water as 1 in 7, and says it should be "soluble in 35 parts of water." A great authority on solubilities of alkaloidal substances tells the writer that Martindale is quite wrong in giving the solubility as 1 in 35, and that he shall take notice of this and other statements at the first opportunity.

**AQUA AURANTII FLORIS.**—Freshfield Reynolds correctly says the Pharmacopœia does not decide whether the "triple" article or that diluted with two volumes of water should be used. He will find by reference to the "Proceeding of the British Pharmaceutical Conference of 1878" that medical practice varies greatly in this matter. The Pharmacopœia has, for the first time, drawn the attention of medical men to this variation, and thus paved the way for an authoritative decision, for which at present the data are insufficient.

**AQUA CAMPHORÆ.**—Thompson says that the official process of digesting camphor in water is obsolete, and suggests pouring a solution of camphor in "absolute" alcohol into water. (Is it obsolete?) Proctor says, "the presence of spirit in the waters," including camphor water, "is quite objectionable; I have repeatedly seen waters prepared by the aid of spirit turn sour by keeping." Remington says, "the small percentage of alcohol in the medicated water is converted into acetic acid when long kept, and thus the preparation is soured."

**ARSENII IODIDUM.**—A. E. Robinson asks for details of process. The Pharmacopœia offers alternative processes, and could not, therefore, well give details. Pharmacists who, like Mr. Robinson, are chemists, need no details, and pharmacists who are not chemists had better not dabble with details involving danger to life.

**BISMUTHI SUBNITRAS.**—Howard points to the chemical formula as possibly indicating the official requirements respecting purity. There are in the Pharmacopœia abundant illustrations of the fact that the chemical formula given under the name of a substance is not intended to indicate the degree of purity of the substance.

**BISMUTHUM PURIFICATUM.**—A. E. Robinson suggests severer tests for arsenium. Allocation of the line between what have usefully been termed medicinal purity and chemical purity is always difficult. More light is wanted here, which experiments on bismuth containing known proportions of arsenium can usefully supply.

**CAFFEINÆ CITRAS.**—Umney says, "a reference to the researches of German chemists shows that true citrate of caffeine does not exist." Here Umney goes too far. He quotes Biedermann and Lloyd. In a notice of Lloyd's paper in the *Pharm. Journ.* for March, 1881, p. 760, occurs the fol-



lowing sentence:—"Citrate of caffeine is a definite compound." Again, the whole tendency of Biedermann and Schmidt's researches would seem to be (*Pharm. Journ.*, April 1883, p. 880) to show that caffeine does form true compounds with the organic acids. All agree that these compounds are readily dissociated, even by the weak influence of the chemical substances commonly termed solvents. It was only after careful examination of the literature of the subject that the editors of the *Pharmacopœia* ventured to suggest as a definition of citrate of caffeine, "a weak compound of caffeine and citric acid."

**CALAMINA PREPARATA.**—Nuthall, Dawson, and Abraham raise old questions respecting the colour, &c., of this substance. They are referred to a literary duel between the late Tilbury Fox and the Editor of the *Pharmaceutical Journal* (ser. 3, vol. v., pp. 381, 419, and 440). More than one of the great medical corporations has desired the restoration of calamine to the *Pharmacopœia*. There may be some temporary difficulty in getting an article having the desired characters, but after demand will probably come supply.

**CALX SULPHURATA.**—E. Davies says this article should be named *calcii sulphidum*. The latter name is already given in the *Pharmacopœia* as a synonym. The subject has been discussed over and over again, and is scarcely worthy of further consideration. The *Pharmacopœia* follows the lead of the majority of writers.

**CATAPLASMATA.**—Martin says he has never prepared a poultice for anyone outside his own household; append them, he says, to a manual on nursing; they encumber the pages of a book intended as a guide to pharmacists. But to some pharmacists the instructions may not be unwelcome. And he forgets that the book is also intended as a guide to medical men, and through them to nurses and others.

**CERA FLAVA.**—In B.P., 1867, the melting-point of wax was "not under 140°"; now it "melts at 146° Fahr." Abraham says the old standard was correct for English wax. That may be, but his own four home-prepared samples melted at 142, 144, 144, and 146; while E. Davies says that of fourteen samples free from paraffin only one melted so low as 145, and thinks 150° Fahr. should be the standard. Ruedorff gives the melting-point as a little above 146° Fahr. Besides, the condition of good average commercial samples is what must officially be considered rather than that of special home-gathered specimens.

**CHLOROFORMUM.**—This is said to contain 1 per cent. by weight of ethylic alcohol. Dott considers this should be 1 per 1,000. That is much too low. The amount depends on the specific gravity of the produced chloroform. One per cent. per volume would, perhaps, have been nearer the mark. But the specific gravity will be the best guide as to the quantity of alcohol, which should be added until the specific gravity is neither above nor below 1.497.

**CHRYSAROBINUM.**—The writer has already dealt with some criticisms on chrysarobin (*Pharm. Journ.* [3], xvi., 458). Martindale says this is not "medullary matter," as officially described. It is not medullary tissue, but it being yielded by medullary tissue (not the pith alone), by disorganisation or chemico-physiological degradation, it certainly is medullary matter.

Critics have not quite rightly given the history of chrysarobin. They have omitted to say that it was Kemp who first published an analytical account of it. The present writer first showed its chrysophanic character, while Liebermann and Seidler showed that as it comes from the tree it is not mainly chrysophanic acid, as the writer believed, but potential chrysophanic acid, which by absorption of oxygen may become chrysophanic acid. Experiments on the wood of the tree would probably show the true parentage of the substance, resinous or otherwise; while therapeutic investigation of it as now used in medicine, and of chrysophanic acid, should be made with the object of deciding whether the definite body, chrysophanic acid, is not on the whole the best for therapeutic employment.

**CINCHONÆ RUBRÆ CORTEX.**—In view of the proved medicinal value of cinchonidine and the general alkaloidal character of this bark, the contention by Umney that, of the amount of quinine and cinchonidine that is to be present only a trace may be quinine, cannot well be maintained as a

really "serious" state of things. Burnett's complaint that in the assay the shaking with acid is "rather tedious" is only less "serious." Powell rightly thinks that the decoction and infusion should be dispensed "almost clear."

**COLLODIUM VESICANS.**—H. W. Jones's ungenerous suggestion respecting "process and formula given without trial on the part of the compilers," and Conroy's statement that he finds the "quantity of pyroxylin is about three times too much," are confuted by the skill and honest candour of Umney, who says that "a further examination of the official process proved that the pyroxylin of the *Pharmacopœia* would produce a suitable collodion if the instructions for its preparation were strictly adhered to." Martindale asks why his proportions of pyroxylin to blistering liquid have not been adhered to. Tiebhorne's researches of 1870 and 1862 have rather been consulted, and his recommendation to use for 1 pint,  $\frac{1}{2}$  oz., or more, has been followed.

**CREASOTUM.**—A. E. Robinson thinks that an approximate boiling-point should have been mentioned. A reasonable suggestion, but samples vary, and the range of temperature during ebullition is very considerable, and the other characters and tests render this one almost valueless.

**ELATERINUM AND ELATERIUM** are words dangerously alike, says Conroy. Will he suggest a remedy for any such danger? H. W. Jones regards the test for elaterium as evidence of "too much easy-chair work" on the part of the compilers of the *Pharmacopœia*. This test is by Flückiger and Hanbury, who by its means obtained 33.6 per cent. of elaterine from one London sample and 27.6 from Malta elaterium. The official limits are "25 per cent., or not less 20 per cent." Even were Mr. Jones's unkind allegation true, which it is not, surely even experts may stand by or sit easily when Flückiger and Hanbury are operating.

**EMPLASTRUM BELLADONNÆ.**—Stephenson, Umney, Borland, Maben, and Conroy regret that this plaster is no longer green, as when made from the alcoholic extract of the leaves; while Martindale disagrees, and says the old was always dirty and disliked by patients. Redwood says, "Wait, and your customers will soon become as accustomed to the brown as to the green." Moss considers the new plaster a decided improvement.

**ERGOTA.**—Millhouse thinks a test should have been inserted, but does not say what test.

**ERGOTINUM.**—Abraham says the process has "the very serious objection that it places the honest manufacturer at a disadvantage by compelling him to adopt an extravagant process, whereas the object doubtless aimed at will not be attained, because the retailer will not make by such a process." The writer does not quite follow the argument. Is not honesty the best policy here?

**EXTRACTUM BELE LIQUIDUM.**—Conroy says the increase of spirit from 12 $\frac{1}{2}$  to 18 or 19 per cent. is not enough; he would go to 25. Time will tell.

**EXTRACTUM BELLADONNÆ ALCOHOLICUM.**—Conroy, Hornblower, and Perry would chase residual spirit from the marc not by "water" but spirit, and so avoid choking the percolator. Stoddart has taught otherwise respecting such drugs; but the point is evidently worthy of further investigation. Botham says the proportion of spirit ordered does not remove all extractive matter, but admits it may remove all atropine. He does not offer proof that the matter which he says is lost is of any value.

**EXTRACTUM CASCARÆ SAGRADÆ AND EXTRACTUM CASCARÆ SAGRADÆ LIQUIDUM.**—Why exhaust the former with dilute spirit and the latter with water? ask Conroy and Burd, and Martindale echoes the inquiry. The usual precedents have been followed, and with care and skill the products are satisfactory, but original investigation is needed here. Experience will guide as to which of the two modes of working is the better.

**EXTRACTUM CINCHONÆ LIQUIDUM.**—The criticisms of pharmacists on this preparation vary as much as the raw material of the article varies. Perhaps the one variation is not altogether unconnected with the other. Millhouse and Cracknell are opposed respecting the miscibility with water of the samples they have prepared. Conroy raises quite a series of objections, while A. E. Robinson says "it leaves little



to be desired as representing a thoroughly reliable and stable preparation of cinchona." Umney leaves 40 per cent. of alkaloids in the bark he operates on, Moss and Gravill only 15 per cent. Howard says that "in some cases" half may be left. *Tot capita, tot sensus.*

Referring to the assay of this extract, Maben says of *fluid grains* "whatever that may mean." Martindale echoes "whatever that may mean." These gentlemen are referred to what is stated in the preface respecting "fluid parts" signifying "the volume of an equal number of parts of water," and to the appendix respecting what is stated of "the grain measure being the volume of a grain of distilled water," and if they cannot draw the not very seriously subtle inference, the next Pharmacopœia will probably render such an effort superfluous. W. N. Allen wanders to the sixth place of decimals to find the fluid grain; but his calculations are founded only on an official approximate statement of the strength of liquor morphinæ hydrochloratis.

**EXTRACTUM ERGOTÆ LIQUIDUM.**—Ward would not have decreased the proportion of spirit used. Conroy and A. E. Robinson commend the decrease. Umney and Moss would have used still less spirit.

**EXTRACTUM GELSEMI ALCOHOLICUM.**—Conroy and Perry say of this what they said of extractum belladonnæ alcoholicum, which see.

**EXTRACTUM GLYCYRRHIZÆ LIQUIDUM.**—Conroy approves of the increase of spirit from one-eighth to one-sixth, but would have added as much as one-fourth, to prevent fermentation in summer. *Tempus omnia revelat.*

**EXTRACTUM JABORANDI.**—Perry repeats his criticism. *Vide ante*, extractum belladonnæ alcoholicum.

**EXTRACTUM NUCIS VOMICÆ.**—Martin says this will vary in moistness, becoming too strong as it dries, and that the only remedy is to dry and powder and standardise the product. Botham repeats. Could not pharmacists adopt another remedy, not altogether unfamiliar to them in dealing with soft extracts, and use—an excipient? Gravill says the addition of milk-sugar gives a presentable product. Conroy says—exhaustion good, product superior to old, standardising satisfactory, test trustworthy.

**EXTRACTUM OPII.**—Umney, supported by Moss, says that "opium in powder" as ordered commonly yields much over the 50 per cent. of product directed to be obtained, and makes the useful suggestion that the words "in powder" be omitted—which has been accepted. The direction that "this extract should yield about 20 per cent. of morphine," which is the important new feature, still, of course, holds good.

**EXTRACTUM PAREIRÆ LIQUIDUM.**—Umney would make this not from the extract as ordered, but direct from the root. But Proctor long ago showed that pareira root varies much in yield of extract, and that therefore the strongest of a given bulk of liquid extract compared direct from a given weight of root would rarely be twice alike. Hence the present process. Conroy approves of the process, stating that in his experience the root may yield about three times as much extract at one time as at another, that is, from 26 down to 9 per cent. Moss also disagrees with Umney.

Umney says the present liquid extract is about three times stronger than the old. Not necessarily; the old might have been the same strength and might have been weaker. From Conroy's data 16 fluid ounces of the old might have contained as much as 4 ounces of extract or as little as  $1\frac{1}{2}$ . The present liquid extract will always contain 4 in 16.

**EXTRACTUM RHAMNI FRANGULÆ.**—Perry repeats his criticism (see *Extractum Belladonnæ Alcoholicum*), and Conroy repeats his (see *Extractum Cascariæ Sagradæ Liquidum*).

**EXTRACTUM SARSÆ LIQUIDUM.**—Conroy says of the process it "will probably yield a superior extract to the old form"; but Umney, while unable, he states, to guess whether it will be appreciated, because it is unlike anything previously in vogue, yet unhesitatingly says "the process is not a desirable one, and certainly, for the exhaustion of sarsaparilla, most wasteful." Umney, while properly, and more or less modestly, directing attention to his own opinions, and numerous valuable pharmaceutical notes and papers, seems

in this case to have overlooked the labours and statements of Proctor, Stephenson, Duhamell, Smith, Husband, and Barton.

**EXTRACTUM TARAXACI LIQUIDUM.**—Cracknell thinks the process of the American Pharmacopœia superior. Umney approves of the new British extract.

**FERRI ET AMMONII CITRAS, FERRUM TARTARATUM.**—The criticisms on these substances have been dealt with by Redwood.

**FERRI ET QUININÆ CITRAS.**—The valuable criticisms of Fletcher and Umney have resulted in the reduction of the official requirements as regards strength in alkaloid from 16 to 15 per cent.

**GLYCERINUM ACIDI TANNICI.**—Millhouse would add a little water to this preparation and to the glycerines of carbolic acid, gallic acid, and alum. Baxter points out that if water were added to the tannic preparation it might be spoilt for throat affections, being then rendered thin enough to run away from the parts. Some of the glycerines are made up with water to avoid inconvenient consistence, and for other special purposes. Otherwise dilution is left to the medical practitioner, who decides not only whether it be needless, useful, or indispensable, but to what extent it should be carried.

**INJECTIO MORPHINÆ HYPODERMICÆ.**—Botham's criticisms have been met by Farr, who rightly shows that loss of alkaloid in washings and filtrates requires the apparent excess of salt ordered in the formula, and says the same remark applies to the test. Bearing in mind the more correct formula now given for acetate of morphine, it will be seen that the strength of the present injection, as shown by Gravill, does not greatly exceed that of the last Pharmacopœia. Martindale recommends hydrochloric acid in place of the camphor-water.

**LAMELLÆ.**—Millhouse, Burnett, and A. E. Robinson desire details respecting the preparation of the discs of atropine, cocaine, and physostigmine. The Pharmacopœia allows of variation in details so long as strength is maintained. There is no evidence yet forthcoming that rigidity of details is desirable.

**LINI FARINÆ.**—Abraham, and afterwards Umney, object to this mode for linseed meal as now described, but they offer no better.

**LINIMENTUM ACONITI.**—Martin is unable to understand the footnote relating to the increased amount of product now got from a given weight of root. It has evidently been understood by other critics, Stephenson going so far as to approve of the alteration to which the sentence alludes.

**LINIMENTUM BELLADONNÆ** is similarly referred to by Martin and by Stephenson.

Umney would have ordered that 20 oz. of root should yield 40 oz. of liniment, not 30, as now officially ordered. But Umney's own researches show that even when he himself operated "under the most favourable circumstances" the 40 oz. were only "almost as strong" as the 20 ordered in the last Pharmacopœia. This and other results induced the editors to recommend the present proportions of products to raw materials. Any weakening of the liniment was undesirable.

Umney would also make the belladonna liniment from the alcoholic extract and the aconite liniment from the extract "for economy's sake." Waste is wicked, but is risk of alteration in the characters of preparations of drugs worth running when the only advantage is a possible economy—economy in which the patient has no share or interest whatever, and is the last to demand? Who gets the benefit of such economy? Mr. Umney's contention must be more fully supported before the Pharmacopœia can be altered in the direction he desires.

**LIQUOR AMMONII ACETATIS, LIQUOR AMMONII ACETATIS FORTIOR, LIQUOR AMMONII CITRATIS, LIQUOR AMMONII CITRATIS FORTIOR.**—The useful criticisms on these solutions have been dealt with by the writer elsewhere (*Pharm. Journ.* [3], xvi., 458).

**LIQUOR ARSENICALIS, LIQ. ARSENICI HYDROCHLORICUS, AND THE OTHER POISONOUS LIQUORS.**—No doubt change is troublesome, but the change of strength of these solutions



from 4 grains per oz. (1 in about 109) to 1 in about 100 will soon cease to trouble Stephenson, Martin, Maben, Conroy, Barnes, jun., and Millhouse. Umney says "this change to percentage will be found to be advantageous to prescriber and dispenser, enabling them to count and calculate like modern people." Martindale would carry decimal proportions further, even to the tinctures. Very eminent medical authorities have accepted this change.

**LIQUOR ARSENI ET HYDRARGYRI IODIDI.**—Cracknell notices a slight separation of arsenium from this solution, and says an older mode of mixing is better. Saul remarks that the slight excess of ingredients over Donovan's proportions allows for the separation, and that he had not found any difficulty in making the solution.

**LIQUOR ATROPINÆ SULPHATIS.**—See "Liq. Arsenicalis."

**LIQUOR BISMUTHI ET AMMONII CITRATIS.**—Saul characterises this as unstable, requiring 10 per cent. of spirit to preserve it, and thinks its inclusion is foolish, considering that the salt itself is official. Umney praises the process, and says manufacturers have used it for years, apparently without any complaint as to its instability. The wisdom of officially including an article so largely in demand should not admit of serious question. Howard regards the process as a great improvement.

**LIQUOR CALCIS SACCHARATUS.**—Saccharated solution of lime should be termed solution of saccharated lime, says Burnett. One is tempted to reply, "How strange there should such difference be 'twixt tweedledum and tweedledee!" but there really would seem to be some chemistry in the criticism.

**LIQUOR EPISPASTICUS.**—The quantity of cantharides for 1 pint has been reduced from 8 oz. to 5 oz., but the strength of the product is greatly increased, because the material is far more perfectly exhausted. Umney would have still used 8 oz. Martindale says the strength "appears to have been reduced without sufficient reason." J. Deane's investigations may be quoted as demonstrating that the strength of this solution has been not reduced—Martindale is wrong—but increased to nearly double, as 13.75 are to 8. The old solution was lamentably weak, but whether its strength should have been increased nearly twofold, as has been done, or nearly threefold, as Umney suggests, remains to be proved.

**LIQUOR FERRI DIALYSATUS.**—Critics differ as to the usefulness of this addition to the Pharmacopœia.

**LIQUOR FERRI PERCHLORIDI FORTIOR.**—Maben prepared a sample, and it had, he says, the specific gravity 1.43. Umney says the official specific gravity, 1.42, is correct.

**LIQUOR HYDRARGYRI PERCHLORIDI.**—Martindale says this is not a solution of perchloride of mercury but of sal alembroth. Would he have the name changed? Is so, to what?

**LIQUOR MORPHINÆ ACETATIS.**—Martin says, "the authorities appear to have overlooked the condensation which takes place in mixing the spirit with the water." This is too bad; the evidence, so far as it goes, being the other way. The authorities in the latter part of the directions say, not add water and add spirit, but, add a mixture of water and spirit, because they bore in mind, amongst other reasons, the said condensation. Again, they do not say, make the solution 1 in 100, as Martin assumes, but about 1 in 100, as he quotes. The penultimate paragraph of Martin's paper betrays not only an uncomplimentary spirit, but a foregone conclusion that more than once warps his judgment in the course of his criticisms.

**LIQUOR MORPHINÆ BIMECONATIS.**—Dott, and afterwards Fletcher, treat a slight clerical error as a chemical error. If they had looked to the characters of either of the three official morphine salts they would have seen the true nature of the slip. (It was published in the official list of corrections before Dott's not unkind statement appeared and long before Fletcher's most unfair paragraph was penned.) Martindale, in regard to this process and the similar one for the hypodermic injection of morphine, finds it "difficult to conceive why the roundabout process of the Pharmacopœia should have been inserted." The process consists in preparing the morphine and dissolving it in the respective acids. Martindale stated—and demonstrated the statement

by experiment at the meeting at which he read his paper—that the far more simple plan was to take the morphine and dissolve it in the respective acids. What does he mean? Where is the difference?

**LIQUOR SODII ARSENIATIS.**—See "Liquor Arsenicalis."

**LIQUOR STRYCHNINÆ HYDROCHLORATIS.**—For replies to criticisms on percentage strength, see "Liquor Arsenicalis"; and on condensation in menstruum, see "Liquor Morphine Acetatis."

**LITHII CITRAS.**—To 50 parts of carbonate of lithium Umney would put, not 90 of citric acid as ordered, but 94 or 95. His carbonate of lithium is probably above the fair average degree of purity.

**MISTURA GENTIANÆ** should have been retained, says Stephenson. Mistura gentiane can very well be spared, says another pharmacist, Martin.

**OLEATUM HYDRARGYRI AND O. ZINCI**, "both being prepared by the most ancient of processes," says A. E. Robinson; while another maker of such substances, Conroy, says "the processes for their preparation work well." One pharmaceutical critic, Pollard, objects to the word "oleatum"; another, Saul, disagrees with Pollard.

**OLEO-RESINA CUBEBE.**—Why the authorities should fix upon this and not include oleo-resina zingiberis is more than Martin can tell. The reply is that there was a medical demand for an official process for the former, but for no other.

**OLEUM PHOSPHORATUM**, says Martindale, is increased in strength from 1 in 160 to 1 in 100. His arithmetic is weak here. The statement should be from 1 in 160 to 1 in 120, or else from 1 in 133 to 1 in 100. He may use either pair of figures he pleases, but not the highest of one of the pairs (the pair relating to volume) and the lowest of the other pair (the pair relating to weight). Then he says that the stated dose—5 to 10 minims—is equal to 1-20th to 1-10th of a grain of phosphorus. Wrong again; it is equal to 1-24th to 1-12th. Then of the amounts he wrongly quotes (1-20th to 1-10th of a grain); he says he is informed these are poisonous doses. Thorowgood, in his "Materia Medica," published eleven years ago, alluding to a phosphorated oil of exactly the strength of the present official oil—16 grains in 4 ounces—says it "may be given in a dose of 5 to 10 minims mixed in emulsion, or it may be given in a small capsule of gelatine." In Walter G. Smith's "Commentary on the British Pharmacopœia, 1867," he states that phosphorised oil is best prescribed in gelatine capsules prepared so as to contain 1-30th, 1-20th, or 1-10th of a grain in each. The critic's information is not supported by these medical authorities. Besides, the Preface expressly states that the doses given in the Pharmacopœia "are not authoritatively enjoined by the Council, and the practitioner must rely on his own judgment and act on his own responsibility in graduating the doses of any therapeutic agents which he may wish to administer to his patients."

**OPIMUM.**—To ensure constancy of composition of opiates, the Pharmacopœia directs that the opium from which they are made be in powder, and that the powder contain 10 per cent. of morphine. Conroy, Abraham, Umney, Wink, and Perry proclaim this standard too low, tending to foster the importation of inferior opium and the exclusion of superior opium. But the so-called "superior" opium is only opium rich in alkaloids, and can be used for the preparation of alkaloids. As to the standard, Morson once showed at a pharmaceutical meeting samples of opium varying in percentage of morphine from 3 to 12; equivalent in the dry powder to certainly not more than 4 to 16 per cent.—average 10. Proctor has stated that Turkey opium varies in strength from 4 to 12 per cent. of morphine, say 5 to 15 per cent. in the dry powder—average 10. Sixteen samples of opium—"ordinary commercial samples, such as are commonly met with in the English market"—were shown at a pharmaceutical exhibition at Nottingham in 1866, and their yield of morphine and moisture were stated. The average yield of morphine by the dried and powdered opium was 9½ per cent.—say, average 10.

Wink supported his endorsement of Umney's criticism by exhibiting at the recent pharmaceutical meeting three samples of opium, 100 grains of each yielding respectively



11½, 7, and 5½ grains of morphine; the 300 grains therefore yielding 24 grains of morphine, or on the average 100 grains yielding 8. But the 100 grains would equal about 80 grains of dry powdered opium, which would contain the 8 grains of morphine. If 80 contained 8, 100 would contain 10. Therefore if Wink will only dry, powder, and mix his opium—his own selection of samples in support of his and Umney's contention respecting the seriously low official standard—he will get exactly the article the Pharmacopœia prescribes. Let us go back to the old state of things, says Wink, and let the purchaser be the judge. Neither his arguments nor his exhibits support his proposition; on the the contrary, they support the ruling of the Pharmacopœia.

Umney says the wholesale druggists are all asking what they are to do with their opium. Answer: Assay, select, dry, powder, and mix.

What was Umney's answer? "I need hardly say that, notwithstanding my loyalty to the Pharmacopœia, I advised that, at any rate for the present, it would be best to leave matters as they were, for nothing would make me believe that either medical men or pharmacists would endorse the dilution of powdered opium rich in alkaloid with opium marc or some such harmless diluent as sugar of milk." His loyalty is, apparently, in no real danger. What medical men and retail pharmacists will not endorse is a return to the use of opium varying in percentage of morphine from 3 parts in 100 to 12 parts in 100, that is, varying 400 per cent.; and will not even return to the use of opium containing 8 parts in 100 to 12 parts in 100, that is, varying 50 per cent. Surely it is not necessary for science to say to commerce *tempori. parendum*!

**OPIUM TEST.**—Abraham thinks the process tedious. Evidently he can himself shorten it. A. E. Robinson says it is reliable, works well, and gives excellent results. Perry approves of the method.

**PARAFFINUM DURUM.**—Conroy and Umney would shorten the range of the melting-point—110° to 145° F. It at least gives them the opportunity of using the variety of hard paraffin they prefer.

**PARAFFINUM MOLLE.**—Umney would exclude the soft paraffin of lower melting point. Martindale would not. Moss distinctly approves of the inclusion of the soft variety.

**PEPSIN.**—A. E. Robinson regards as crude, and prepared by a crude process, but suggests no better.

**PHYSOSTIGMINA.** Burnett says, is far better known under the name "eserine." In the Codex the latter is used, but in the German Pharmacopœia and the Pharmacopœia of the United States "physostigmine" is the name employed. Its source is a "physostigma." *Eserine* is given as a synonym.

**PILULA CONII COMPOSITA.**—Scholey says the treacle is not required. This needs confirmation. Besides only "a sufficiency" is ordered.

**PILULA PHOSPHORI.**—Martindale devotes five words to this, namely, "it has had my condemnation." Poor pill. One is irresistibly reminded of four lines descriptive of the results of another celebrated condemnation, familiar enough to readers of the "Ingoldsby Legends."

**PILULA RHEI COMPOSITA.**—Martindale says one-eighth of the quantity of excipient ordered is all that is needed! The writer has before him a specimen of the pill just made by his pharmaceutical colleague, and containing not "about" the full proportion of treacle, as directed in the formula, but the whole of the treacle. Its condition is perfect. This criticism demands further attention.

**POTASSII ACETAS** is difficult to get "neutral," A. E. Robinson rightly says, but it can be done.

**PULVIS TRAGACANTHÆ COMPOSITUS.**—Scholey would omit the starch as being useless, and because it makes the preparation look unsightly. This criticism needs confirmation. The presence of starch seems to have satisfied prescribers and dispensers for the past 150 years.

**SALICINUM** is said by Dott to be soluble not "in about 28 parts of . . . spirit at common temperatures," but in 50. The published solubility is 1 in about 28, but Dott is so trustworthy an authority that his figures will displace those hitherto obtaining in pharmaceutical literature when

he gives pharmacy the benefit of his experiments on the subject.

**SODA TARTARATA.**—E. Davies would term this *Sodæ et potassii tartaras*. The London Pharmacopœia termed it *Sodæ potassio-tartaras*; those of Edinburgh and Dublin, *Potassæ et sodæ tartaras*; the British Pharmacopœia, 1864, *Sodæ et potassæ tartaras*. The British Pharmacopœia, 1867, probably to avoid a conflict of claims, went back to the present form of the old name, *soda tartarata*, soda which has been tartar-ated.

**SPIRITUS ÆTHERIS NITROSI.**—The specific gravity is given as 0.840 to 0.845. Umney says he obtained a sample of specific gravity 0.841 when he worked with the official small quantities, but on the large scale his mean was 0.846, and thinks 0.845 near enough for all practical purposes. Where is the force of this criticism? Unless the retailer who makes with the official small quantities is to be shut out, Umney's own figures almost exactly support the range of specific gravity given in the Pharmacopœia.

**SPIRITUS AMMONIÆ AROMATICUS.**—Conroy gives the specific gravity as 0.900; Kitchen, 0.894; Abraham, 0.900; Umney, 0.893. Thresh, who supplied this highly-approved official process, explains that by a clerical error he gave the specific gravity 0.886, instead of 0.896. By-the-by, the criticisms well illustrate the difficulty of arriving at the exact specific gravities of such fluids, and should teach us all to be lenient and charitable in discussing such matters.

**SUCCI.**—The juices of belladonna, hemlock, henbane, broom, and dandelion group themselves in one class as medicinal juices, hence are placed next to each other in the Pharmacopœia under the common name *succus*. The two fruit juices, *limonis succus* and *mori succus*, are placed under the lead of their respective fruit names, a simple and intelligible principle which Fletcher has failed to perceive.

**SUPPOSITORIA BELLADONNÆ** should have been included, says Perry.

**SYRUPI.**—Stephenson thinks the syrups should be farther removed from saturation, and Maben and Millhouse repeat the criticism. On what published data is this sweeping opinion founded? Cracknell remarks that the syrups are not too thick, and warns against weaker syrups liable to ferment and burst their brittle bonds.

**SYRUPUS AURANTII FLORIS.**—See "Aqua Aurant. Flor."

**SYRUPUS FERRI IODIDI.**—Umney devotes two paragraphs to pharmaceutical denunciations of a syrup of specific gravity 1.400, and to praises of a syrup of specific gravity 1.385. Well, the official figures are not 1.400, and they are 1.385. He would have this official product weigh 2 lbs. 11½ oz., and not 2 lbs. 11 oz. There is nothing in the official directions to prevent him doing as he desires. He thinks the boiling of the aqueous solution of the iodide of iron with a little of the syrup useless and unnecessary. Would he mind trying this little modification in the method? It has been successfully practised for some years by a wholesale druggist who probably manufactures the syrup as largely as anyone in the trade. It is founded on the researches of Jeannel and of Hammer (*Pharm. Journ.* [2], x., 430, [3], vi., 907, and [3], xiii., 1,078). Wells seems also to have worked in this direction (*Pharm. Journ.* [3], xiv., 82).

**SYRUPUS FERRI PHOSPHATIS.**—Why, asks A. E. Robinson, has not H. W. Jones's process (metallic iron and phosphoric acid) been incorporated? Because there is no published evidence that it has been sufficiently tried in practice to warrant its displacing the present official process.

**SYRUPUS ZINGIBERIS.**—Scholey draws attention to the fact that the quantities of materials produce only 19 fl. oz. 6 fl. drachms. It is odd that, so far as the writer is aware, no pharmacist has noticed this short pint during the past eighteen years.

**TABELLÆ NITROGLYCERINI.**—Burnett looks upon the absence of details here as encouraging secret processes of preparation. Martindale says it is a pity more definite instructions were not given respecting the preparation of nitroglycerine tablets. No one is better qualified than Martindale to supply the omission. But, considering the dangerous character of nitroglycerine, and the legal aspect of this matter, it is a question whether in this one case the



manufacture of it and its compounds by the minimum number of persons does not offer the least of possible evils.

**TINCTURÆ.**—Martin's uncomplimentary condemnation of the general process should either not have been written or have been supported by reference to published papers. Nevertheless there is, of course, room for many experimental pharmaceutical researches on the tinctures and the best mode of preparing each of them or groups of them. If different pharmacists would publish results of their practical experience with the respective tinctures, pharmacy would be much benefited, both immediately and through future pharmacopœias.

**TINCTURA CHLOROFORMI ET MORPHINÆ.**—Stephenson says this resembles chlorodyne very well, but he would increase the proportion of morphine and oil of peppermint. Umney would exclude "such nostrums." Moss agrees with Stephenson and disagrees with Umney. The preparation probably admits of improvement. It will doubtless gradually take a place in medicine like many predecessors now only known by orthodox names.

**TINCTURA CINCHONÆ.**—Umney says the exhaustion of the bark by the proof spirit is still incomplete by 25 per cent. in the case he cites. Is that so in all cases? And if so what improvement can be effected? This would seem to be one of the many tinctures that would repay experimental investigation.

**TINCTURA GELSEMI.**—Conroy says rectified spirit is better than the strength now official (proof). The remarks just made apply here also.

**TINCTURA IODI.**—Stephenson and Bland ask if the present formula is intentional. Yes. Practical pharmacists, Martindale and Symes, recommended that the proportion of iodide of potassium should be increased, and this has been done.

**TINCTURA QUININÆ.**—Ward and Botham think this may be made more easily than the directions indicate. The full directions are sometimes desirable.

**TINCTURA QUININÆ AMMONIATA.**—Phillips says even the "little heat" to aid solution is not necessary. Employment of "a little heat" is advantageous.

**UNGUENTUM ZINCI OLEATI.**—Perry says this is too hard, but does not say what was the melting-point of the soft paraffin he employed.

**VINUM IPECACUANHÆ.**—Stephenson does not like the look of the process. \*Maben thinks that not one-tenth of the pharmacists who prepared the old will take the trouble required for the new. Conroy thinks the process clumsy, long, and tedious. A. E. Robinson says it is obviously impracticable on the large scale. But Umney characterises it as a working formula. Saul found no great difficulty with it. J. and H. Matthews find it satisfactory. To criticisms so divergent reply is superfluous. It is a practical process by a practical pharmacist, and worth any little trouble and judgment necessary to its successful employment.

**VINUM QUININÆ.**—Martindale would have had hydrochlorate of quinine used instead of sulphate, as in the case of tinctura quininæ. There did not seem to be such necessity for the change.

**ZINCI SULPHOCARBOLAS.**—E. Davies and A. E. Robinson would prepare this by a different method. The Pharmacopœia authorises them to vary processes or use others altogether. So with zinci valerianas.

#### THE APPENDIX.

**ACETATE OF SODIUM.**—Umney inquires after this salt. It was formerly used chiefly in official preparations, hence was in the text. It is now chiefly used in testing, hence it is in the appendix. But the statement is there added that it is "also employed in the preparation of acetic ether."

**WEIGHTS AND MEASURES.**—Respecting "fluid grains," see "Extractum cinchonæ liquidum."

**GALLONS AND LITRES.**—Abraham says that the Pharmacopœia contradicts itself upon the same leaf in the matter of metric equivalents of Imperial weights and fluid measures, that the error runs through the whole series of equivalents of measures of capacity, and points out that he has taken the

trouble previously to call attention to the matter, and to give a table of correct figures. If he will go still deeper into the subject and take into account the conditions of temperature under which the respective units of the Imperial and metric systems are defined he will see that the official figures are all right and his own all wrong. Nevertheless, pharmacists should thank him for having saved them the trouble of resolving what unquestionably has the appearance of inconsistency.

And now the writer asks the critics of the British Pharmacopœia, 1885, to give careful and candid consideration to the foregoing replies to their unfavourable criticisms. To their favourable criticisms, and on the satisfaction with which Stephenson, E. Davies, Howard, Abraham, Umney, Moss, Martindale, and others regard the Pharmacopœia as a whole, it is unnecessary for the writer to offer any comment. Nor can he further notice criticisms on the list of "additions and omissions" *quâ* additions and omissions, or criticisms on the latinity or posology, or the very few on the botany of the Pharmacopœia. But he must, without going into Pharmaceutical politics, criticise the view which so many of the critics take respecting the share of pharmacists in the construction of the Pharmacopœia. Throughout the criticisms of the Pharmacopœia as a whole, one cannot but see that the great majority of critics confuse two distinct and different things, namely, the question of the part that pharmacists take in the construction of the Pharmacopœia, and the question of their position in relation to the part they take in the construction of the Pharmacopœia. The writer, bearing in mind his editorial position in relation to the members of the Medical Council, who by law must produce the Pharmacopœia, on the one hand, and his professional position in relation to the members of the Pharmaceutical Society, who with all other pharmacists must obey the behests of the Pharmacopœia on the other hand, cannot say one word in reference to the second or political relationship of the pharmacist to the Pharmacopœia. But with regard to the former, that is, the pharmaceutical relationship of the pharmacist to the Pharmacopœia, he points to the pages of the Pharmacopœia in confirmation of the statement he now makes, namely, that for the past eighteen years, in fact, ever since pharmaceutical editors have had anything to do with the volume, every pharmaceutical discovery made by pharmacists, every improvement of processes or tests, every comment—in short, every contribution to the construction of the Pharmacopœia which has been deemed by their authors worthy of publication, has been fully considered by the authorities responsible for the production of the book, and that whenever the contribution has been considered worthy of incorporation—as it has in most cases—it has been incorporated. The consequence is that, so far as the pharmacy of the Pharmacopœia is concerned, the work is largely, as I have elsewhere said, the pharmacists' own Pharmacopœia. The Pharmacopœia already is largely constructed by themselves; it is they who have supplied the chief pharmaceutical materials of the edifice, their own pharmaceutical experts being employed to put those and the other materials together. One would have thought that pharmacists would have been the first to perceive this fact, and, indeed, to have urged it in support of their claims to that position in relation to pharmaceutical construction which they desire to occupy. But to assert, as the critics so often do, that the practical pharmaceutical element is wanting within the Pharmacopœia, and that therefore they ought to share in its construction, is to assert what is, first of all, contrary to fact; while, secondly, the counter assertion and the statement that pharmacists already largely help to make the book, would better support their cherished policy.

**SYRUP OF HIPPURATE OF LIME.**—Dr. M. G. Guignard gives the following:—

Pure hippuric acid .. .. .	1 gramme
Milk of lime .. .. .	q. s.
(To produce alkaline reaction.)	
Hot water .. .. .	20 c.c.
Sugar .. .. .	24 grammes
Alcoholate of lemon .. .. .	015 gramme

The antidiabetic solution of hippurate of lime is prepared in the same way, minus the sugar.—*Répert. de Pharm.*



## SCIENTIFIC COOKERY.

MR. W. MATTIEU WILLIAMS gave an interesting lecture at the London Institution on "Science Applied to Cookery," some items of which may be transferred to this page. After explaining the constituents of food, Mr. Williams impressed on his audience the fact that all nourishment must be presented to the stomach in a soluble condition. Gelatine, as it occurs in the bladder of the sturgeon, is insoluble; but the processes applied to it to render it suitable for food are, according to Mr. Williams, a course of hydration. It then becomes soluble; but, by prolonged heating, it may be again dehydrated, and the condition is arrived at which the carpenter is familiar with in his glue-pot when, by too much heat, he has taken the nature out of the glue, and rendered it granular and insoluble. So with albumen. By excessive heating it is quite possible to convert albumen into a horny substance, which serves as an excellent cement, but which is very poor nutriment. For stewing purposes, therefore, Mr. Williams strongly recommends the use of a water-bath. By that an equable and never too high temperature can be ensured. Ironmongers are beginning to sell cooking-vessels on this plan. An old hen can be cooked to a delicious tenderness by a prolonged stewing one day, followed the next day by roasting in the oven.

Fat undergoes a peculiar change in cooking which does not seem to have been investigated. It consists naturally of a combination of certain of the fatty acids with glycerine. In cooked fats, it is Mr. William's theory, these acids are to some degree separated, and thus is obtained that granular condition so familiar in cooked bacon fat, together with some traces of the sweetness of the glycerine. It is the granular condition occurring in melted fats which occasions the chief difficulty which the makers of "bosh" butter have had to contend with. Incidentally the lecturer pointed out that persons who find butter indigestible can often take on their bread very thick layers of cooked bacon or other fat, and he recommends this fact to the notice of invalids who require nourishment of that description.

The art of cooking meat consists in retaining in the meat the natural juices, hydrating the gelatine, and coagulating the albumen, but not heating it so far as to render these constituents again insoluble.

Anyone can cook a steak on one of the modern grills in the great restaurants over a large, clear fire; but the process is not so easy over a low kitchen fire. The scientific way to proceed is to cut off a piece of the fat of the steak and throw it in the fire, and throw the steak after it in the blaze thus created. The heat at once carbonises the outside of the steak and forms a sort of crust which retains the juices of the meat; the vapours set free within, struggling to escape, break up the fibres, and the steak is stewed in its own juice, as it should be. If cooked a little way from the flame the effect is that the fire deposits on the steak a certain proportion of coal-tar, naphtha, and other products of its own combustion.

The peculiarity of roasting consists in the formation of a certain amount of caramel which conveys its peculiar flavour to the meat. But Mr. Williams insists on the superiority of roasting in an oven to roasting before the fire. The former process, if conducted in an oven free from any nonsensical ventilation arrangements, which are not necessary if the meat is sweet, is cooked in the midst of its own vapours, the juices are retained, the heat is more equally and regularly applied, and the result is more perfect cooking and far less waste, both of material while cooking and of uneatable pieces afterwards. He attributes the prejudices against baked meats to the old-fashioned baker's ovens, where pork, mutton, beef, geese, and perhaps some high game were all being cooked together.

The frying-pan ought to be abolished except for pancakes. Frying-kettles are now coming into use, which enable the fish, meat, or fritters to be buried in fat previously melted, and so cooked perfectly throughout. It is curious how free this fat can be kept from flavour. Mr. Williams says apple fritters may be cooked in the same fat which has served for a sole without acquiring any trace of a fishy flavour.

## FATAL DOSE OF SULPHATE OF QUININE.

M. BAILLS, a French army surgeon, reports in a medical journal an extraordinary case of quinine-poisoning, which is quoted in the *Union Pharm.*

A corporal returning from drill visited the infirmary and asked a zouave in charge there to give him a purgative. The latter agreed, and decided to take a dose himself as well. Intending to take the medicine from a bottle containing a solution of sulphate of soda, he took in mistake a bottle containing a solution of sulphate of quinine, and both soldiers drunk off a tin mugful of the liquid. It is calculated that the dose taken by each was about 12 grammes (= 180 grains).

Both soldiers went about their ordinary occupations until about half-an-hour after taking the medicine. Then commenced buzzings in the ears in one case, stomach cramps and vomitings in the other case. Both patients were placed in one room and attended by M. Baills, who reports the symptoms.

There were great pallor, dilated pupils, eyes projecting and fixed, short and anxious respiration. Diminution of the respiratory report on auscultation. Reduction of temperature appreciable to the hand; pulse small, irregular, and at times scarcely appreciable. Beating of the heart similar. In fact the circulatory system generally seemed particularly affected. Some burning pain in the throat, and much thirst. No nervous agitation nor convulsive movements. Much buzzing in the ears; intelligence perfectly preserved. One of the patients declared he could hear nothing, and that his ears seemed likely to burst.

Strong emetics were administered, and free vomiting was excited. Strong infusions of coffee were administered, both as a beverage and as an enema. Cold water was applied to the head, and mustard to the chest. The zouave was very anxious about his comrade. In a second fainting fit, which occurred about two hours after taking the quinine, the zouave died suddenly. The corporal was in the hospital a week, and completely recovered.

## ON CHERRY-LAUREL WATER.

BY DR. J. E. DE VRIJ, C.I.E.

IN the discussion concerning the Pharmacopœia Britannica, at the evening meeting of the Pharmaceutical Society, on November 25, 1885, Mr. Umney expressed the following opinion:—"If cherry-laurel water were standardised one way, it would be something different the next day; and it was for that reason that he thought that it might be expunged from the Pharmacopœia."

More than forty years ago, viz., in 1842, practical experience taught me quite the contrary, and therefore it may, perhaps, be useful, both for pharmacy and therapeutics, to publish in this journal what I published in a Dutch journal in 1842. At that time we were still living under the reign of the Pharmacopœia Belgica, which prescribed the distillation of a certain amount of water from a prescribed quantity of fresh leaves, without indicating how much hydrocyanic acid the water ought to contain. As I had often supposed myself that this water was very liable to change, I made several accurate determinations of waters, prepared by myself, according to the mentioned Pharmacopœia, and found that if well prepared they contained 0.0835 per cent. of hydrocyanic acid. After this determination I filled several wine bottles with this standardised cherry laurel water, and preserved them in a horizontal position in a cellar. During more than a year I examined from time to time the contents of one of these bottles, and found that the percentage of hydrocyanic acid was not the least altered. My conclusion, therefore, was that cherry-laurel water is a reliable medicine if well prepared and well preserved.\*

Having become satisfied on this point, I wished to become acquainted (1) with the amount of hydrocyanic acid in the essential cherry-laurel oil, and (2) with the maximum of

\* This conclusion has been recently confirmed by the editor of the *Pharmaceutisch Weekblad*, December 5, 1885.



hydrocyanic acid which cherry-laurel water could contain. I prepared, therefore, a certain amount of this oil, and obtained in the meantime a very concentrated water by repeatedly redistilling the water after separation of the oil or fresh leaves, so that it was perfectly saturated. The examination of the essential oil showed that it contained 8.044 per cent. of hydrocyanic acid; whilst the concentrated water, after filtration through a moistened filter, contained 0.168 per cent. of hydrocyanic acid.

The first attempt made in Holland to standardise the cherry-laurel water was by the editors of the *Pharmacopœia Neerlandica* in 1851, wherein they state:—"Aque laurocerasi bonæ notæ uncia una, nitratis argenticæ solutione instillata, grana duo cyaneti præbet."

This first attempt was followed by a legal prescription in the next *Pharmacopœia Neerlandica*, editio altera, published in 1871, which requires that the cherry-laurel water must contain 0.0839 per cent. of hydrocyanic acid.

### A DAY IN THE DRUG TRADE.

7.45 A.M.—Shaving. Bell rings. Cut myself. Dash down, bloody chin, to the door. Nobody there.

8 A.M.—Open shop.

10 A.M.—Enter first customer: "A penn'orth of sippity powder for a red head."

10.15 A.M.—This document is handed to me:—"Please a cooling powder aged two years three months and an ounce of castor oil."

10.50 A.M.—A very youthful customer: "A penny powder for two babies, please." I: "A penny powder for two babies! What age are they?"—Youthful client: "Oh! they ain't one yet; they've only just come." Supplied a penny-worth of violet powder.

11.20 A.M.—"A penn'orth of glorified lime, and two penn'orth of consecrated chalk."

11.55 A.M.—Elderly female: "Will you kindly direct me to the Home for Lost Cats?" In consequence of the absence of a curriculum, I could not supply the information.

2.30 P.M.—"Say, misther, I've just bought this 'ere canary. Can you tell me if it's a cock or a hen?" Told him to go to the—President of the Pharmaceutical Society.

3 P.M.—Another document: "Please to let bearrer have twopennyworth of pills not too strong for a policeman." Supplied the pills, and wondered if the difficulty in finding policemen where they're wanted was attributable to some chemist supplying pills of too great potency.

3.40 P.M.—"A syphon of lavender water."

4.50 P.M.—"I guess, captain, there's a little boy playing almighty smash with the woodwork of your window outside." I "go for" that little boy.

4.55 P.M.—"A bottle of christianised cream for the hair, and please will it make the whiskers grow?"

5 P.M.—"A penn'orth of damnation flea-powder." Supplied Dalmatian insect powder.

6 P.M.—Document: "1*l.* tintar of mary."

6.30 P.M.—"Beg pardon, sir, but is buckthorn and castor oil a good thing for a baby just christened?"

6.35 P.M.—"3*l.* backsider gin." Peroxide of hydrogen supplied.

9 P.M.—"A penny stamp, and four farthings for a penny."

10 P.M.—Enter a Bacchanalian with a vinous odour: "I shay, can yer (hic) minishter to a mind diseased, or (hic) pluck a rooted shorror from the (hic) breast?" Without waiting for a reply, this man burst forth into vulgar jest and ribald song. I shied a mortar at his head; he evaded it; and it (the mortar, not the head) knocked down two show-jars and almost killed the message-boy.

CLOSED FOR REPAIRS.

W. G. B.



### RECEIVING ORDER.

BENSON, GEORGE WILLIAM, 157A and 157B Great Portland Street, chemist.  
November 12. Exam. 13th January, 11, at 31 Lincoln's Inn Fields.  
High Court of Justice.

### ADJUDICATION.

LONGSHAW, PETER PHILLIPS, Sankey Bridge Chemical Works, Warrington, now residing at Penketh, late chemical manufacturer. Nov. 23.  
Court—Warrington.

### PETITION AND TRUST UNDER CESSIO ACTS.

M'KERCHER, PETER C., Oban, druggist.

### NOTICES OF INTENDED DIVIDENDS.

FRYER, JOHN, South Stockton, chemist and druggist.—J. R. Stubbs, O.T. Rec., 8 Albert Road, Middlesborough.

LLOYD, JOHN, Bridgend, chemist. Proofs by November 30, to Trustee—T. H. Stevens, Off. Rec., 3 Crockherbtown, Cardiff.

NELSON, ALFRED HORATIO, 1 Sherland Road, and 3, 4, and 5 Station Road, Twickenham, photographic chemist, trading as "W. H. & J. Nelson."  
—A. H. Stoneham, Off. Rec., 28 and 29 St. Swithin's Lane.

TOBIAS, ALEXANDER JOHN & HENRY ASHUR, Liverpool, chemical brokers, trading as "Tobias & Co." Trustee—J. S. H. Banner, accountant, 24 North John Street, Liverpool.

### NOTICES OF DIVIDENDS.

BROWN, EDWARD ANDREW, Beddle, fy. chemist, now victualler. Div. 1*s.* 9*d.* on November 30, at O.T. Rec. offices, 8 Albert Road, Middlesborough.

TREVASKIS, GEORGE MARRACK, Plymouth, chemist and druggist. Div. 3*d.*, at Off. Rec. office, 18 Frankfort Street, Plymouth.

### ORDERS OF DISCHARGE.

COLLING, ROBERT, 3 Central Buildings, Stockton, chemist and druggist. Granted as from April 20, 1886.

LLOYD, JOHN, 16 Dunraven Place, Bridgend, chemist. To be granted on payment of 3*s.* 4*d.* in the pound.

### LIQUIDATION BY ARRANGEMENT, OR COMPOSITION DEED.

KNAGGS, AARON, Loftus, grocer, druggist, and general dealer. First and final div. 6*d.* on and after November 25, by Trustee—G. E. Pybus, 134 High Street, Stocktop.

### PARTNERSHIPS DISSOLVED.

BUSH, WILLIAM, & Co., York Street and James Street, Walworth, manufacturing and wholesale chemists. October 31. (William Bush and Frederick Wm. Bush.) Debts by W. Bush.

COOPER, THIRKELL & Co., Queen Victoria Street, and Coombe Arsenic Works, near Callington, Cornwall, arsenic manufacturers and merchants. November 7. (Arthur Saunders Hughes, Fred Cooper and Percy Thirkell.)

OINTMENT FOR CHAPPED HANDS.—Van Harlingen recommends this formula:—

Oxide of bismuth .. .. .	4 grammes
Oleic acid .. .. .	30 "
White wax .. .. .	12 "
Vaseline .. .. .	36 "
Oil of roses .. .. .	2 drops

Apply the mixture three times a day.

TO WHITEN THE NAILS.—Mix the following:—

Acid sulph. dil. .. .. .	2 drams
Tinct. myrrh .. .. .	1 "
Aq. dest., or spring-water .. .. .	4 oz.

First clean with white soap, and then dip the fingers into the mixture.



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C. T. KINGZETT, F.I.C., F.C.S., Managing Director.

SEE SEABURY & JOHNSON'S Advertisement of INDIA-RUBBER POROUS AND SPREAD PLASTERS on page 163.

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18s. per cwt. net, bag included; in 7, 14, 28, 56 lbs., 20s. per cwt., delivered free in London, and in 1 lb. Tins, 5s. per doz. BEST QUALITY; NO OIL EXTRACTED. Carefully cleaned and ground so as to retain the natural colour of the Seed without being heated.

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In 7-lb., 14-lb., 28-lb., 56-lb., and 1-cwt. bags, 28s. per cwt., net, bag included, delivered free in London.

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Finest powdered, 14s. per cwt.; in 7, 14, 28, 56 lb. Packages, 16s. per cwt net, bag included, delivered free in London. Samples post free.  
G. S. MUMFORD, STEAM MILLS, FARRINGTON ROAD, LONDON, E.C.

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# EDITORIAL NOTES.

## THE PHARMACEUTICAL YEAR.

THE year 1885 must remain as a special epoch in English pharmacy, incorporated as it will be in the title of the British Pharmacopœia. Notwithstanding the pedantic demand of the decimalists for a new Pharmacopœia every ten years, it is not likely, nor is it desirable, that we shall have another edition of the official manual in the current century. It is to be hoped that the twentieth-centurians will not find reason to mock too tauntingly at our supreme effort.



Another event marking the year which is now closing is the publication of the first International Pharmacopœia. Though not authoritatively adopted, this work must always claim 1885 as the year of its birth. So far it seems to have excited but little interest either here, on the Continent, or in America. We believe that we alone, among pharmaceutical publications, have published it in its entirety in one issue, though several of our enterprising contemporaries are using it from week to week, or from month to month, as a convenient "fill-up"—as if any human being could study such a work in that disjointed fashion. However, the fact remains that M. von Waldheim's work has elicited but very little criticism. Probably this is because an International Pharmacopœia does not come close enough to any individual pharmacist, and because, as yet, associations have not had the opportunity to examine it. It is much to be hoped that before the time for its confirmation at Milan (in 1888) shall come round some organisation can be effected, so that the pharmacists of each country shall submit reports on the work.

Mention of the International Pharmacopœia recalls the International Pharmaceutical Congress at Brussels, the most imposing gathering of pharmacists ever assembled. With a King for honorary president, a Minister of State to open the proceedings, and a round of gorgeous fêtes, pharmacists were never in such exalted circumstances before. Apart, however, from the International Pharmacopœia, which may or may not turn out to be a useful work, the programme and the performance of this Congress must have seemed to most people, whether pharmacists or others, as vague as they were vast, as hollow as they were big. To pass resolutions that druggists should everywhere be "doctors of pharmacy"; that specialties should be annihilated; that all nations should assimilate their pharmacy laws to those of Greece, and so forth, brought the legitimate drama very near to the borders of burlesque. The tendency towards absurdity was, however, checked by the undercurrent of strong sense and great ability manifested by those Belgian pharmacists who took the leading parts.

The chief political event of the year bearing on pharmacy was the Poisons Bill introduced into the House of Lords by Lord Carlingford on behalf of the Privy Council in March, and referred to a Select Committee in May, though that Committee has not yet been nominated.

The Bill was fortunately so palpably absurd in many of its provisions that unanimous opposition to it by all sections of the trade was ensured, and its overthrow in Parliament, had it come on for discussion, was practically certain. It is not necessary to dwell on its provisions, but there are two reflections suggested by this Bill concerning those exalted persons who govern us which we who are governed may as well bear in mind for future reference. First we remember the extraordinary perversity of vision—it is difficult to employ the right expression—which so affected the Pharmaceutical Council as to drive them to throw away the chance which the Government had previously offered them to co-operate in this poisons legislation. *Æsop's Dog* and the *Shadow in the Water* was never better exemplified. Secondly, we do not wish to forget Lord Carlingford's wonderful display of pharmaceutical lore. A clerk or a shopman who should conduct an employer's affairs with such contemptuous indifference to accuracy or circumstance as Lord Carlingford showed would have been requested to devote his talents to some other pursuit. But in this case, when a law was in question which would seriously affect ten thousand respectable men and their families, a superficial acquaintance with his subject was all that could be expected from a noble lord who was willing enough to accept a liberal salary for his services.

Lord Carlingford regards carbolic acid as one of those

things of which it will take a great deal to kill any one. Our volume shows that this agent has fully kept up its reputation during the year as one of the most deadly of chemicals. Month after month we record deaths resulting from the careless way in which it is supplied. There seems some reason to believe that the Privy Council are recognising their responsibility in this matter. They have evaded it long enough.

The Pharmaceutical Council can hardly be said to have won any new glories during 1885. They have a large administrative work to perform, and there is no reason to doubt its efficient execution. The new by-laws submitted for the approval of the Privy Council, the result of very great deliberation, were hurried through their necessary pharmaceutical stages to such an extent as to leave it doubtful whether legal requirements have been complied with. A quarrel has been picked with the Scottish members of the Society, the purpose of which is not even yet intelligible. Lastly, the initiatory steps have been taken towards the foundation of a laboratory for pharmaceutical investigations and research, a task which certainly comes within the province of the Society, and which may bear much fruit.

The Chemists and Druggists' Trade Association is slowly but surely retiring into that "hell of the English," as Carlyle terms poverty, where good and useful work is at least limited. The Executive Committee have found themselves unable to protect the trade to the extent they think necessary in the matter of trade-marks for want of a solid reserve fund.

Cocaine, introduced in the latter part of 1884, has been the sensational medicine of 1885. It has been found capable of doing so much that some one has suggested that the easier way of learning all about it will be to make a list of the few diseases it is not suitable for. The greatest medical announcement of the year has been that of M. Pasteur, who is not a medical man, respecting the cure of hydrophobia. If he can substantiate his claim, and abolish one of the most dreadful of diseases, his discovery will rank as one of the most valuable of the century.

Commercially the year closes badly. Our exports and imports manifest a regular decline, much of which, however, is attributable to the best of all causes—reduction in price. Competition in retail trade is as severe as ever, but in connection with this we have the hopeful feature that chemists and other tradesmen are developing confidence in their struggles with the monster stores. With a fair field the real advantage must remain ultimately with the competent man, who knows his business and attends to it himself, rather than with the capitalist, who can only work through the agency of a number of salaried employés.

## THE BRITISH PHARMACOPŒIA.

THE discussion as to the merits and demerits of our new Pharmacopœia has by this time about burned itself out, and we may hope to enter on the new year with other topics to occupy us, and with the standard work a little improved for the ransacking it has undergone, corrected in a few important and in some other trivial errors; and, though not yet perfectly satisfactory to everyone, at least a work which may be leaned upon, and one of which British pharmacy has no reason to be ashamed. The column of "corrections," which we print on another page, sets at rest two or three points about which the battle has raged the most fiercely. Much credit is due to the pharmacists who have pointed out errors, but it must be added they have made the utmost of their discoveries. Of the forty-three corrections ordered twenty-nine are purely clerical errors, hardly noticeable, and which could not affect any preparation, most of them occurring in the cross references; serpentary "root" is twice



printed for rhizome; and a slip has occurred in the chemical formula for iodoform. The specific gravity of liq. ferri dialysatus was a printer's error, but that for sp. ammon. aromat. was the author's mistake. The insertion of proof spirit where rectified was intended in the cases of tinctures of cinnamon and sumbul was also of the nature of a clerical error, but it made an important difference in the preparation. These, with the slight alteration in the degree of evaporation of liquid extract of bael, are all errors of secondary importance. Those which remain to be mentioned, and which are now corrected, are the inaccurate description of chrysarobinum, the excessive dose of extract of nuxvomica, the requirement of 16 per cent. of quinine in citrate of iron and quinine (now corrected to 15 per cent.), the miscalculations of the formulæ of liq. ammon. acet. fort. and liq. ammon. citrat. fort., and the very important words "in powder" in the formula for extract of opium, now ordered to be omitted, as suggested by Mr. Umney.

This list is hardly a formidable one. Of course it does not meet all the criticisms that have been levelled against the work, but it removes all the serious defects which by unanimous consent existed in the new edition. It is quite clear that a very large amount of serious work was put into the revision, and it is further evident that, notwithstanding the somewhat undignified reticence which leading pharmacists thought fit to assume in reference to the revision, their labours have been very closely scrutinised, and their conclusions to a large extent adopted.

One omission from the corrections is somewhat surprising. It was first remarked in these pages by Mr. David Howard, and has been emphasised since by Messrs. Umney, Moss, and others, that a large proportion of the best red bark comes to London "either as shavings or crushed by hydraulic pressure in packing," and thus not answering the description of the B.P. There ought to be good reason before the Pharmacopœia should interfere in any degree with the convenience of commerce in this matter.

The discussions which we report this month are full of interest. At the adjourned pharmaceutical meeting on November 25, Messrs. Martindale, Moss, and Fletcher assisted to keep the ball of criticism rolling. Dr. Redwood completed his reply on Mr. Umney's paper as far as time would permit. The most important part of his speech was his evident loss of confidence in the perfection of his citrate of iron and quinine test. On this point the Professor now admits an error. But he in no way deserved the censure passed upon him by the President of the Society, who intimated that Professor Redwood was disinclined to allow the criticisms of men younger than himself. Dr. Redwood expresses his opinions and asserts his conclusions with sufficient firmness, but in no part of this controversy has he uttered a word of disrespect for the most youthful of his assailants.

Mr. Umney was in his best form in his reply, and may claim to have done much, both now and previously, towards perfecting our national Pharmacopœia. His utterances on pharmacy are not gospel, as Dr. Redwood truly stated, but he generally knows the subjects whereof he speaks, and is justified in speaking with confidence.

We are able to publish besides a contribution to the criticism on the Pharmacopœia from Dr. Symes, a note on cherry laurel-water from Dr. de Vrij, and a comment on the style in which the corrections have been sent out from Mr. John Moss. But the smartest production which the controversy has brought forward is Professor Attfeld's criticism of the critics. The botanical editor of the Pharmacopœia seems to have done his work so well as to have left scarcely an opening for attack. The other editors responsible for the

chemistry and pharmacy of the work, after admitting the errors which we have already noted, have met other commentators with at least equal skill. Dr. Attfeld, following Dr. Redwood's hint, has grouped the critics together, and, in many cases, makes one answer the other; occasionally, the same man answers himself. Some of the criticisms have been hardly serious—these are touched lightly; the more effective ones are generally met fairly.

In conclusion, we may be permitted to allude to the treatise on the "Pharmacy of the Pharmacopœia," which appears in THE CHEMIST AND DRUGGIST DIARY for 1886, lately circulated. This had to be in type for our foreign issue before November 1, and, therefore, before many of the comments had appeared. But we do not find much omitted there, and, taken as a whole, we believe the treatise represents as fully as can be the consensus of pharmaceutical opinion on the British Pharmacopœia of 1885.

### PATENT MEDICINE STAMPS.

WE have received a large number of letters during the past month from all parts of the country testifying to some extra activity on the part of the Inland Revenue officers, and to a consequent widespread panic on the part of chemists in regard to the labelling of some of their specialties. We have been invited to give our opinion as to the liability or otherwise of scores of preparations the labels for which have been sent to us. Generally, but not always, the request is accompanied by a stamped envelope for reply. We wish to point out—for it seems necessary—how very unsatisfactory such inquiries and replies must be. Occasionally we have labels which clearly do or do not render the preparations liable. There is no difficulty about such. But the majority are more or less skilfully composed with the intention of evading the stamp. We may have an opinion—but what is its value? The Board of Inland Revenue will prosecute, or will not prosecute, quite regardless of any views we may have expressed, and our correspondents would be prompt enough to inform us of the fact if they were fined after following our advice.

Sometimes we have letters after the following pattern:—"I enclose four [six, eight, or ten] labels. Please say if you consider any of them are subject to the stamp duty, and, if so, explain how they ought to be altered so as to be safe." Now, a proper answer to such a letter would occupy three or four foolscap pages, and then would be dangerous to our correspondents, and perhaps to ourselves. We are not at all sure that we should not be infringing the law, which disallows laymen "acting as solicitors."

There does appear to have been some determination on the part of the authorities to enforce the law a little more freely, but we do not ascertain that there is any disposition on the part of the Board of Inland Revenue to interpret it any more rigorously. Elsewhere we print once more the exact letter of the law. If read carefully it will be seen that any medicine falling under the description given is liable to stamp duty on any one of several different grounds. This needs to be stated, because we find there is a widespread impression that an article is not liable unless it be a secret medicine. The conditions which occasion liability are *any one* of these:—

- (1) The claim of an occult secret or art in the preparation;
- (2) The claim of an exclusive right to make it;
- (3) Having patented it;
- (4) Recommending the preparation either on the label or by any written or printed advertisement or handbill as beneficial to the prevention, cure, or relief of any disorder affecting the human body.

With respect to the second condition it may be stated that the Board regards the form of words "A's cough lozenges"



or "B's corn plasters" as claiming an exclusive right. So, too, would "Cough lozenges made *only* by A" become liable. The term "cough lozenges" as a title seems to be allowed, but a label "lozenges for a cough" would be taken as recommending the preparation under the fourth condition.

Some of our correspondents are very angry with the Board, and think we ought to denounce them. This is not reasonable. The Board have to execute the provisions of the Act, and while that remains on the statute-book the cheapest and easiest course is to obey it.

### THE OFFICIAL RED CINCHONA BARK.

It may be useful as well as interesting to consider the present position with regard to cinchona bark for pharmaceutical preparations.

The British Pharmacopœia, 1885, directs that all the official preparations shall be made from red cinchona bark, which it describes as occurring "in quills or more or less incurved pieces, coated with the periderm, and varying in length from usually a few inches to a foot or more." But for the restriction as to length this description might be held to include shavings of bark as well as what are generally known as quills. When it is considered that shavings, as recently stated by Mr. John Moss, constitute at least 95 per cent. of the total imports of red bark into London, the question arises, Why is so large a proportion excluded? It would be interesting to know what form of bark, shavings or quill, was used by the operators whose results have recently enriched experimental pharmacy. Presuming that the experiments were made with a view of testing the official process for liquid extract of cinchona, we should conclude that quill-bark was operated upon. One operator, however, who removed only 56 per cent. of the total alkaloids, admitted that he had used shavings. Mr. Moss, using quill-bark, succeeded in removing 88½ per cent. of total alkaloids; and, during his remarks on this subject, in the course of the recent discussion on the Pharmacopœia, the suggestion was accepted by Professor Redwood that the explanation of this difference in result was to be found in the difference in the form of bark.

A hope was indulged that Professor Redwood would have explained more fully the cause of the difference, and give the meeting the benefit of his large experience on this point. He did not, however, refer to it in his remarks, and the explanation has still to be found. Professor Redwood's view, when amplified, we take to mean that red bark occurring in quills is so constituted that when reduced to powder and treated with water containing free hydrochloric acid it yields up its alkaloids more easily and freely than does red bark occurring in shavings when similarly treated. It is difficult to conceive why this should be so. Suppose a proper tree be selected, and the bark from half the trunk be removed in strips, which, when dry, curl up and form quills, and the other half has the bark removed by shaving it off, is it meant that the former will behave differently from the latter to the same menstruum? We cannot think that this is the Professor's meaning, and yet are unable to perceive any other. It would be well if he would enlighten pharmacists on this point. Meanwhile, we trust that those who make the liquid extract of cinchona will experiment with shavings, and give the results for comparison with those obtained from quills; and if it be found that they do not very greatly differ, it may be possible to obtain official recognition for the former. This would be to the great advantage of pharmacy, which benefits in proportion to the removal of restrictions on the materials with which it works. Mr. Brady says that, with regard to

Java, he believes there will be an increased quantity of scraped bark and a diminished quantity of the peeled. There can be little doubt that this will hold good of India, and if there be only 5 per cent. or less of peeled bark now, what shall be used in pharmacy when there is none?

### STROPHANTHUS.—A NEW DIGITALIS SUBSTITUTE.

At the Cardiff meeting of the British Medical Association Professor T. R. Fraser, F.R.S., President of the Section of Pharmacology and Therapeutics, contributed a valuable paper on "The Action and Uses of Digitalis and its Substitutes, with Special Reference to Strophanthus (*hispidus*?)." This paper is printed in full in the *British Medical Journal* of November 14, and in it will be found interesting physiological and therapeutical results, the cream of fifteen years' patient investigation and trial. Meanwhile, our intention is to direct attention to the comparatively rare drug strophanthus. Professor Fraser's attention was first called to it in 1870, when he heard of it as an African arrow poison. He then submitted it to a chemical and physiological investigation, and isolated from the drug a crystalline principle possessing all the active properties of this drug. This he named *strophanthin*. It is not an alkaloid, but appears to be of a glucosidal nature. His results have been corroborated in the main by other investigators, but a full research has been prevented for lack of material. Dr. Fraser has now received a full supply of the drug, and with characteristic liberality has placed the whole of what remains from his experimental work at the disposal of Messrs. Duncan, Flockhart & Co. and J. Robertson & Co., of Edinburgh. We learn besides that Messrs. Christy & Co., Fenchurch Street, are prepared to supply the drug.

Strophanthus is an apocynaceous plant, indigenous to Equatorial Africa. The exact species is not known, but provisionally it has been named *S. hispidus*. "It produces a follicle from nine to ten inches in length, within which are contained from one to two hundred oval seeds, characterised by having beautiful amose appendices, that give an arrow-like appearance to the seed." It is these seeds, coarsely ground and made into a paste, which constitute the poison with which the arrows are smeared. "They have been met with," says Professor Fraser, "at Kombé, in the Manganja country, near the Zambesi, in the Shiré valley, in the Gaboon district, in Guinea, and in Senegambia. The poison is in some places called Kombé, and in others Inè or Onage." The seeds contain a large quantity of fatty matter, and from 8 to 10 per cent. of the peculiar principle Strophanthin. The drug is administered in the form of a tincture—2½ ounces of the coarsely powdered seed to a pint of rectified spirit. This is administered to adults in doses of from 5 to 20 minims. Generally a large dose—from 10 to 20 minims—is given to commence, and this gradually decreased. The immediate effect is an early and powerful influence upon the heart, and the pulse rate is reduced in a remarkable manner. Concurrently, the respirations are diminished day by day. Following this, the action of the remedy extends to the kidneys, and copious diuresis is maintained under comparatively small doses.

The advantage which strophanthus appears to possess over digitalis is that of being non-cumulative; it has a less powerful action on the blood vessels than digitalis, and a more powerful action on the heart—peculiarities which are of no little value in certain cases.

In the discussion which followed the paper the hope was expressed that such a well-tried servant as digitalis should not fall into disuse; and in his reply Professor Fraser stated that



he believed that strophanthus would not displace digitalis, but that each would have its own sphere. "There was often a tendency," he observed, "to become unduly enthusiastic over new remedies; and he thought that this was a danger to be avoided." The fact that the Professor has waited fifteen years before publishing his results is in itself a proof that the new remedy is one of great importance.



AND

### Literary Notes.

*A Practical Guide to French Polishing.* By a Practical Man.  
London: Wyman & Sons.

THE art of French polishing, which consists essentially in the skilful deposition of dissolved shellac on various woods, was introduced into this country from the Continent some seventy years ago. Its professors are of various degrees of proficiency, but few of them will fail to obtain benefit from the instructions in this really practical treatise. The druggist, too, who is called upon to supply French polish, varnishes, and wood-stains, will obtain quite enough useful information from the work to justify him in adding it to his technical library.

*A Text-book of Pharmacology, Therapeutics, and Materia Medica.* By T. Lauder Brunton, M.D., D.Sc., F.R.S., &c.  
London: Macmillan.

WE cannot restrain some degree of wonder as we examine this massive volume. Dr. Lauder Brunton is so well known as one of our most philosophical physicians that a work of this character from his pen must have an exceptional interest. But the surprising feature about it is that in several important respects some ingenuity should have been taken to diminish, if not to destroy, the value of the immense labour which the author has evidently devoted to the work. Some illustrations of this remark will appear in the course of this review; but the most prominent one must strike every reader. Dr. Brunton has worked on the subject, it appears, for some twenty years. He has written out his manuscript at least twice over, and evidently he has changed his mind in regard to some of its features more than once. He has fairly incorporated the most modern medical, if not the pharmaceutical, literature of drugs into his work, and he has aimed to make the book, not only a manual for students, but also a book of reference for practitioners. And, publishing the work only a few months since, he has based the whole on the Pharmacopœia just superseded! We are the more surprised at this when we find all through the pages notes inserted by Dr. Francis H. Williams, of Boston, Massachusetts, adapting the text to the United States Pharmacopœia. The changes in the Pharmacopœia are not so abundant as to have made a revision of the text an immense labour, compared to the task of composing the whole; but they are quite abundant enough to render the "text-book" unreliable in regard to official formulæ, and, consequently, to that extent, useless to either students or practitioners for reference. The more important part of the work, however, is not concerned directly with Pharmacopœia articles. Under the first section, entitled "Pharmacology and Therapeutics," we have twenty chapters, in which the action and administration of drugs are discussed. Dr. Brunton thus distinguishes the two above-named orders of medical science:—"Pharmacology is a knowledge of the mode of action of drugs upon the body generally, and upon its various parts. Therapeutics is a knowledge of the uses of medicines in disease." The distinction is perhaps somewhat subtle, but, at any rate, it explains the character of the 438 pages of the first section. These chapters are of the highest interest, and fully embody the results of recent medical investigation on the subjects named. The subjects discussed are the action of drugs on nerves, on the brain, on respiration, on the circulation, on the digestive system, and

so on; and in regard to the methods of administering drugs, their application by the skin, to the eye, the ear, the nose, and other parts of the body, is explained both by text and illustration.

Section 2 is on General Pharmacy, and is of no use to anyone. It gives lists of the preparations of the B.P. and of the U.S.P., the former being now incorrect. There are, besides, such statements as that "Pills are small round masses which can be conveniently swallowed."

The remainder of the work is devoted to *Materia Medica* specially, and is divided into the following sections:—Inorganic *Materia Medica*, Organic *Materia Medica*, Vegetable *Materia Medica*, and Animal Kingdom. The section described as Organic *Materia Medica* is thus prefaced:—"This section contains organic compounds artificially prepared, and not merely extracted from vegetable substances containing them. Although it is small, it contains some of the most important remedies we possess, and by-and-by will probably replace to a great extent, and perhaps entirely, the vegetable *Materia Medica*." The section describes such *organic substances* as bisulphide of carbon, benzine, petrolatum, the alcohols and ethers, nitroglycerine, chloral hydrate, chloroform, iodoform, carbolic acid, resorcin, naphthalin, antipyrin, &c.

The special feature which characterises the articles in all these sections is to be found in the paragraph describing the physiological action, uses, and therapeutics of the various medicines. In this respect Dr. Brunton's work far surpasses any other book on *Materia Medica* in the language. The merely pharmaceutical part of the articles is very briefly done, but notable and excellent additions to many of the descriptions of leaves, seeds, roots, &c., are the small drawings which explain the text. These are so good in many instances that it seems a pity the idea has not been carried out much more completely. Probable adulterations might advantageously be shown in this manner.

It is deserving of mention that the indexes to the work occupy over 120 pages. These include General and Bibliographical indexes and an index of diseases.

*The Practice of Pharmacy:* A treatise on the modes of making and dispensing officinal, unofficinal, and extemporaneous preparations, with descriptions of their properties, uses, and doses. Intended as a handbook for pharmacists and physicians and a text-book for students. By Joseph P. Remington, Ph.G. With nearly 500 illustrations. J. B. Lippincott Company, Philadelphia and London. 1885. 1,080 pages.

ANOTHER bulky volume from the United States; remarkable, apart from its intrinsic value, from the fact that the author, as a practical pharmacist, runs a drug-store, and at the same time professes and demonstrates the theory and practice of pharmacy in a college. The fitness of such a man to write a book is unquestionable; he is (or should be) acquainted with recent advancements in his art; his acquaintance with public wants permits him to trim theories down to practical shape, and his business experience enables him to learn what is actually required by his brother pharmacists; in short, the scientific acumen of the *savant* and the practised hand of the compounder, together, are just the combination required for pharmaceutical works, and these we have to a certain degree in the volume before us. The wonder is where the author found time in his busy life to write such a work.

The arrangement of the book is excellent. Based as it is upon the systems of study adopted by his predecessors, Professors William Proctor and Edward Parrish, he retains their more important characteristics, adding new ideas, and arranging the whole so that we are "led from the consideration of elementary subjects to those which involve more advanced knowledge." Thus, after an introduction devoted to pharmacopœias and dispensatories and their nomenclature, we have five parts in which are discussed the various operations in pharmacy, ways, means, substances, and every detail required for good work.

Part I. (211 pages) consists of twenty chapters, including metrology (weights, measures, and specific gravity); operations requiring the use of heat, use of heat, vaporisation, distillation, sublimation, desiccation, comminution, solution, separation of fluids from solids, filtration, clarification and decoloration, separation of unmiscible fluids, precipitation,



crystallisation, granulation and exsiccation, dialysis, extraction, expression, and percolation. Each of these subjects is treated fully; for example that on percolation (eighteen pages) gives first a brief historical statement, then an account of the principle of percolation (three pages), the shape of the percolator, degree of comminution of the drug, the moistening and packing of the powder, use of previous maceration, choice of menstrua, and minor details. Eight pages are devoted to special percolators and special methods. To illustrate this subject alone there are twenty-three well chosen woodcuts of apparatus, which add greatly to the value of the text.

Part II. (153 pages) is devoted to official pharmacy (of the U.S.P.). In this section the author puts forward as a special feature the equivalent *by measure* of the liquids of the Pharmacopœia which are ordered *by weight*. The necessity for giving such equivalents appears to show that the pharmacopœial regulation is not working harmoniously in practice. This part is divided into eleven chapters, comprising what we may call solution in pharmacy, from simple aqueous solutions to liquids prepared by percolation. The U.S.P. formulæ are reproduced and arranged in chapters according to the nature of the solvent. Individual preparations are not commented upon, but each group is preceded by a note, in most cases brief, but in the case of such preparations as infusions and tinctures lengthened to suit the requirements of the case.

Part III. (248 pages) is devoted to inorganic substances and their preparations. The preparation of each is given and explained, and the characters and tests tabulated in convenient form. The substances are grouped together according to their physical and therapeutical properties, their chemical analogies being also, as a rule, considered in the grouping. Thus we have nickel, cobalt, and tin in one group; antimony, arsenic, and bismuth in another. The method of treatment we may show from arsenic. First, the origin and properties of the metal are given; then tests for arsenic and its salts; the names and preparation of official preparations and of unofficial compounds of arsenic, followed by a fuller account of the official preparations, with explanations, tests, and uses. Similarly, in Part IV. (253 pages) we have in fourteen chapters a full account of all organic substances and their preparations, grouped according to the physical and medical properties of their principal constituents. This grouping is somewhat novel, and is undoubtedly of great value to the student as a mnemonic aid.

Part V. (112 pages), extemporaneous pharmacy, is devoted to a treatise on dispensing, and includes such subjects as the choice and fitting up of a drug-shop; arrangements of the dispensing-counter, laboratory (back shop), and cellar; prescription writing and reading; dispensing-counter *impedimenta* (cork-presses, labels, paste, &c.) Compounding of prescriptions and of pharmacopœial preparations not before considered (powders, pills, ointments, &c.). Part VI. concludes the volume, and is a useful formulary of unofficial preparations. There are many important features of the work which we have not noted. Chief of these are the numerous and complete tables scattered throughout the pages; there are few chapters which do not have their principal features so tabulated expressively.

The illustrations are a commendable feature of the book; they are good as drawings, and help to elucidate the text. As a text-book for the student, the work is well adapted for a long curriculum, but were it issued in four columns instead of one, we would say that for all subjects but botany and theoretical chemistry the student would have in it a sufficient library. As a book of reference for pharmacists and physicians it is no less valuable, although we notice that there are omissions which the author might do well to supply in a future edition. For example, under hydrobromic acid we do not notice the sulphuretted hydrogen method, and the author is surely wrong in giving the tartaric acid and bromide form as one which will yield an acid answering the U.S.P. tests. Even although all the bitartrate formed is thrown out by the method proposed, free tartaric acid and bromide remain in solution. He states that "no simple practicable test has yet been discovered to determine the percentage of ethyl nitrite" in sweet spirit of nitre. This, written in October, 1885, a few years after the publication (in the United States) of Eykman's method, and nearly a year after Allen's, is unpardonable; and below, under æther aceticus, we notice a "best method" for its preparation, which was greatly

improved upon a few years ago. Physostigmine, it is stated, is amorphous, the B.P. says *crystalline*; and we have the remarkable statement that phytosterni (the wax of calabar bean) is a neutral principle? A process for the isolation of physostigmine is not given, though required for the salicylate. Under *nux vomica* no notice is taken of the glucoside *Loganin*, isolated from it by Dunston and Short. Nor are *coto* or *remijia* barks mentioned in the list of unofficial drugs containing alkaloids, although such a trivial drug as red poppy has a place. Omissions and errors are certain to be found in such a book as this, but we do not think, from our examination, that they are in at all usual proportions.

*A Precise Investigation of some Micro-organisms in Soluble Ferments: their Chemical History and Relation to Disease; including also a Practical Study of the Disinfecting Value of Sanitas Fluids.* By C. T. Kingzett, F.S.C., &c.

THAT micro-organisms are somehow concerned in the production of certain diseases is beyond questions; but the exact method in which they proceed is not yet clear. The general theory is, no doubt, that which Mr. Kingzett expounds, namely, that "germ diseases are due to the physiological effects of chemical substances elaborated by or in micro-organisms." In other words, that they set up a sort of fermentation, just as yeast does in the solution of sugar. Acting on this theory, Mr. Kingzett has planned and carried out a series of interesting experiments, which show the power which Sanitas fluids exert in preventing such fermentation. Solutions of glucose and yeast, with the addition of certain proportions of Sanitas fluid, left for a month, did not yield any alcohol. Sanitas was also found to prevent the lactic fermentation and the ammoniacal fermentation of urine. The inference is, of course, that Sanitas administered as a medicine would secure the system against any injury that bacteria could effect. Mr. Kingzett very fairly shows that the same agent also checks to some extent the action of saliva on starch and pepsine on albumen; but he considers that the dose necessary in the treatment of zymotic diseases would not be sufficient to seriously interfere with the digestive processes.

*Philosophy in the Kitchen.* By an Old Bohemian. London: Ward & Doudney.

Is it a secret that the "Old Bohemian," who discourses so pleasantly in this not too bulky volume of the good things of a bad world, is our old friend and occasional contributor, Dr. G. L. M. Strauss, of Everywhere? It would make the shade of Brillat-Savarin smile again to find his votary so appreciative and still so delicately palated. The famous old French author, judge, and epicure, divided humanity into two sections. The long-faced, who, born ascetics, die ascetics, and live poor defrauded mortals, for ever insensible to the joys of earthly banquets; and the round-faced, jovial-featured creatures, who chew with unction and swallow with delight, gratefully appreciating the gifts of Heaven. Readable by all, the Old Bohemian's moralising is especially addressed to the initiated. The abstruse delicacies of bloaters boiled in lighted whisky, tripe à la mode de Caen, and washed down with Imperial pineapple-punch, need not only reflection to prepare, but a certain perception of the palate, given in the first place as a birthright, and perfected by age and experience, to properly appreciate. One regret pervades the mind while reading the complicated and fascinating receipts: it would be delightful to work out some of the experiments ourselves, but, if rich, we lack the courage to face and defy the kitchen deity, while, if poor, such morsels as *pâté de foie gras*, at 2*l.* 10*s.* the tureen, and peacocks stuffed with truffles, had better be joys unknown. Sweets and pastry are almost overlooked. They evidently have to stand aside for more serious subjects. There is a chapter full of useful and sensible advice to cooks and their accomplices; and receipt after receipt, blended with anecdotes new and old, take this volume out of the usual run of cookery-books. Dr. Strauss, as in duty bound, hits out at the wearers of the blue, evidently agreeing with his friend, M. A. Titmarsh: "Above they say our flesh is air, Our blood delightful ichor, Oh grant, amongst all changes there, They do not change our



liquor." We must steal one of the Old Bohemian's stories. Frogs' legs are to him, as to all rightly-trained connoisseurs, a special luxury; but a German young lady, of exceedingly spare dimensions, being asked by the author at a restaurant if she possessed those delicacies, took the query as such a personal insult that another German war was nearly the result. The Doctor's well-proved gallantry was no doubt equal to the strain put upon it.

*A Physician's Pharmacopœia; containing Formulæ of Unofficial Preparations, with the Object of Securing Uniformity in Dispensing and to Discourage Secret Nostrums.* By J. Baily, Pharmacist, Margate. London: Churchill. Pp. 106. 3s. 6d.

THERE is much that is suggestive and useful in this little volume, but we fail to see how uniformity is to be promoted by offering formulæ for many B.P. preparations similar in name but differing in strength. Thus we have, for example, a chlorodyne differing from the B.P., as well as from both Squire's and Martindale's formulæ. We have a "pil. phosphori, Ph. Ph.," quite different from the B.P. form; an ung. zinci oleatis, Ph. Ph., one-fourth the strength of the B.P.; several vapours which differ, and so on. The answer may be that Mr. Baily's formulæ may be better than those of the B.P. in these cases; but, if so, what is the object of some other formulæ, which do not sensibly differ from the official one, "extract aloes, Ph. Ph., for instance"? There is no pretence of making any section of the work perfect. Thus we find among seven syrups Easton's and Fellows' imitated, but nothing representative of Parrish's. Mr. Baily gives a good many formulæ, which will, no doubt, be found useful, such as a liq. bituminis detergens, a liq. copaibæ c. cubeb. et buchu. His phosphorus pills and combinations therewith are made from phosphorised suet. There is a very useful section on lozenges, with a great number of formulæ. A simple working process is described, and a drawing given of the apparatus necessary, which is only a cylinder with a piston. We may add that Mr. Baily has sent us some samples of lozenges made by his formulæ, which are very satisfactory.

*A Summary of New Remedies.* By Thomas M. Dolan, M.D. London: Baillière, Tindall & Cox. Pp. 93.

BRIEF descriptions of many of the newer remedies, not full enough to suffice for practitioners who want detailed information, and yet in many cases omitting to refer to original memoirs. A considerable proportion of the remedies noticed are proprietary.

THE discontinuance of the *Medical Times and Gazette* at the end of this year is announced.

A NEW edition (the eleventh) of Attfield's "Chemistry" has appeared within the past few days, and will be duly reviewed by us.

THE "Essays on the Depression of Trade," for which Messrs. Pears gave prizes of 50 guineas each, and which we referred to in our notice of the British Association meeting at Aberdeen, have been published by Chatto & Windus in pamphlet form at 1s. The authors are Edwin Goodby, editor of the *York Herald*, and William Watt, of Aberdeen. With these is printed Professor Leone Levi's paper on the same subject, read before the Economic Section of the British Association. That the subject is absorbing a great deal of attention is obvious from the fact that 100,000 copies of this book have already been issued.

We have also a waiting review:—

"The Essentials of Materia Medica and Therapeutics." By A. B. Garrod, M.D. Eleventh edition. Edited by Nestor Tirard, M.D. (Longmans.)

"History of Homœopathy." By W. Ameke, M.D., of Berlin. Translated by A. E. Drysdale, M.B. Edited by R. E. Dudgeon, M.D. (Gould & Son.)

"The Physician Himself." By D. W. Cathell, M.D. Fifth edition. (Cushings & Bailey, Baltimore, U.S.)

Basley's "Pocket Formulary." Eleventh edition. (Churchill.)

"Veterinary Pharmacology and Therapeutics." By James Brodie Gresswell, M.R.C.V.S. (H. K. Lewis.)

## Scientific Notes:

*On Chemistry, Pharmacy, Botany, Materia Medica, &c., Original, Selected, and Translated.*

### PRESERVATION OF EXTRACTS.

C. J. DAVEY, M.B., Beaufort West, Cape of Good Hope, writes as follows to the *Lancet*:—"Most practitioners must have experienced the difficulty of keeping, for any but the shortest period, the extracts of the Pharmacopœia at a proper consistence for pill-making or other purposes. Very soon after arrival from the druggist, especially in warm climates, however carefully they may be put away in closed pots, it will be found that they have become tough and hard, and it is only by the diligent use of the pestle and mortar, coupled with a considerable degree of patience, that it is possible to utilise them. Some, again, show a tendency to become mouldy, or in warm weather to ferment. These great drawbacks may be perfectly obviated by combining with the extracts, *whilst still soft*, some glycerine. The proportions I use are:—Extract, 4 parts; glycerine, 1 part; each by weight. Mix intimately by trituration in a mortar, or with a spatula on a slab. Doubtless, a smaller quantity of glycerine would suffice, but the above is easy for calculating. About fifteen months ago I tried the above plan with three extracts (belladonna, hyoscyamus, and physostigma), and the residue is as perfect to-day in consistency, &c., and also in therapeutic effect, as when freshly prepared, although left purposely most of the time in open pots. With the other soft extracts of the Pharmacopœia it would, I dare say, act equally well. I claim no originality for this simple method, but thinks it needs only to be widely known to be well appreciated."

### AN ADULTERANT OF LINSEED.

M. RENOARD (*Repert. de Pharm.*) says that all linseed shipped from Riga contains some grains in the form of elongated seeds, from which a bunch of hair escapes. This is so common as to be regarded as an indication of Riga linseed. M. Renouard has traced this seed to the *Centaurea cyanus*, or common corn bluebottle. Its presence is due to inefficient weeding.

### ADULTERATION OF LEATHER.

We translated a paragraph from a German source in August last, stating that a Dr. Kayser had found leather often adulterated with common glucose to the extent in chamols leather of 4.5 and 7.6 per cent., and in sole leather 2.7, 6.5, 5.2, and 7.2 per cent. of glucose. We have since learned that our English adulterators are cleverer than their Continental rivals, as they succeed in adulterating leather to the extent of 25 per cent., the adulterant they use being, we are credibly informed, epsom salts!

### THE ADULTERATION OF BEESWAX

Mr. ALBERT CLARENCY, in the *Union Pharm.* recommends the following process for testing beeswax:—

(1.) Density.—Place a piece about the size of an egg in a beaker containing alcohol, 33° or thereabouts, stir to expel any globules of air adhering to the wax, then add, stirring continually, water or alcohol until a mixture of a density equal to that of the wax shall be attained. This is indicated when the wax, rising to the centre of the liquid column, maintains its equilibrium there. The degree of the alcohol is then taken by means of an alcoholometer and the density can be calculated from an alcohol table. The test is to be taken at a temperature of 15°.

*Second Test.*—Boiling the wax in water.—This operation should take place if possible in a flask of 250 cc. capacity. Take 10 grammes wax, 100 cc. distilled water, boil for a few minutes, stir, and leave to cool. Insoluble mineral substances sink to the bottom of the flask. The liquid should be transparent and colourless; if tinted yellow the presence of turmeric may be suspected, and discovered with certainty



by adding five drops of ammonia to 10 cc. of the liquid, which will assume a deep yellow colour in case of adulteration with turmeric. Farinaceous substances are present if the liquid turns blue on the addition of iodine.

**Third Test.**—Saponification by carbonate of soda.—Put in a flask of 100 cc. capacity 2 grammes of the suspected sample and 40 cc. of a cold solution of pure carbonate of soda, boil the mixture slowly for four minutes, then take it off the fire without shaking it, and let it cool. Two different results may occur, viz.:—

a. The contents of the flask appear in two distinct layers, a solid upper one, about 3mm. in thickness, and a second layer, limpid, liquid, and of a yellow colour, varying in intensity according to the original colour of the wax. The wax is pure if the density is found to be between 0.961 and 0.963. It is adulterated with paraffine or mineral substances if the density is under 0.960.

b. The contents of the flask are in a more or less perturbed condition, according to the quantity of substances fraudulently added, which may be rosin, suet, stearine, stearic acid, or vegetable wax.

No sophistication can escape these three tests.

Supposing beeswax to have been adulterated with a substance of greater density, such as vegetable wax, in order to hide a previous addition of paraffine or mineral wax, the density-test would be of no avail; but the fraud would be demonstrated by the second or third test.

#### THE DECOMPOSITION OF POTASSIUM CHLORATE BY HEAT.

By Frank L. Teed, D.Sc., F.C.S. (Chemical Society, November 5, 1885].

By heating potassium chlorate till it had lost varying amounts of oxygen, determining that oxygen from the loss in weight, and determining the potassium chloride produced by means of a decinormal silver nitrate solution, using potassium chromate as indicator, the author has come to the conclusion that potassium chlorate decomposes according to the equation  $10\text{KClO}_3 = 6\text{KClO}_4 + 4\text{KCl} + 3\text{O}_2$ .

The equation indicates that for every 74.5 parts of potassium chloride produced there should be 24 parts of oxygen evolved; also that when potassium chlorate shall have yielded 7.84 per cent. of oxygen, all the chlorate is decomposed and nothing but perchlorate and chloride left.

The equation  $2\text{KClO}_3 = \text{KClO}_4 + \text{KCl} + \text{O}_2$ , by which the decomposition is ordinarily expressed, requires 32 parts of oxygen to every 74.5 of potassium chloride, and would not be complete till 13.06 per cent. of oxygen had been evolved.

The following are results obtained—

Amount of $\text{KClO}_3$ Taken	Oxygen Lost	Potassium Chloride Formed	Amount of Oxygen to 74.5 of KCl
Grammes	Per Cent.	Per Cent.	
3.2515	1.66	5.25	23.51
1.592	3.49	10.86	23.94
2.1725	6.00	18.25	24.49
3.956	10.52	27.36	28.65

The last experiment, in which 10.52 per cent. of oxygen was evolved, shows a much larger yield of oxygen to the 74.5 parts of potassium chloride, which is readily explainable by reference to the equation proposed. As mentioned above, the change represented by the equation is finished when 7.84 per cent. of oxygen is evolved, and 24.34 per cent. potassium chloride is produced.

The remaining 2.68 per cent. of oxygen can only be produced by the decomposition of potassium perchlorate in accordance with the equation  $\text{KClO}_4 = \text{KCl} + 2\text{O}_2$ ; from this it follows that 74.5 parts potassium chloride are produced for every 64 of oxygen, and hence that the evolution of 2.68 of oxygen should be accompanied by the formation of 3.14 of potassium chloride. Therefore, 10.52 of oxygen requires  $24.34 + 3.14 = 27.48$  of potassium chloride, a number agreeing fairly well with that found—27.36.

On treating some of the residue from the fourth experiment with sulphuric acid, only the faintest possible indication of a chlorate was obtained.

The author confirms the statement that no perchlorate is formed when potassium chlorate is heated with manganese binoxide, having found in one experiment—the only one made—a ratio of 74.5 of potassium chloride to 47.15 of oxygen (theory requiring .48), when the amount of oxygen evolved was only 3.38 per cent.

If potassium perchlorate be required in quantity, it would be considerably better to heat the chlorate till only 7.84 per cent. than till 13 per cent. of oxygen is evolved, as the equation  $2\text{KClO}_3 = \text{KClO}_4 + \text{KCl} + \text{O}_2$  indicates a yield of 56.53 per cent. of perchlorate; the equation  $10\text{KClO}_3 = 6\text{KClO}_4 + 4\text{KCl} + 3\text{O}_2$ , a yield of 67.84 per cent.

**Discussion.**—Dr Armstrong inquired whether any special method of heating had been adopted, and whether there was any evidence to prove that no percholate underwent decomposition in the first three experiments. Granting the correctness of the author's conclusions, the results were of interest, not only because they would enable us to correctly represent the decomposition of potassium chlorate, but also on account of the indication they appeared to afford that the molecular weight of the salt was much higher than is indicated by the formula  $\text{KClO}_3$ .

Dr. Teed replied that he had merely used a small flame in effecting the decomposition, and that he had no special proof to offer that the percholate had escaped decomposition. It had also occurred to him that his results might be regarded as evidence that potassium chlorate had a higher molecular weight.

#### MANUFACTURE OF ALUMINUM BY ELECTROLYSIS.

*La Lumière Electrique* says that Mr. L. Senet has devised a new process that permits of obtaining aluminum, as well as copper, silver, &c., by electrolytic way. A current of from 6 to 7 volts and 4 amperes is made to act upon a saturated solution of sulphate of aluminum in the presence of a solution of chloride of sodium, the two solutions being separated by a porous vessel. There forms a double chloride of aluminum and sodium, which is decomposed, and the aluminum that is set free deposits upon the negative electrode.

The process may be applied either for obtaining deposits of aluminum upon any objects whatever, or, what is more important, for the cheap manufacture of the metal.

#### ARTIFICIAL COCAINE.

Mr. Merck, of Darmstadt, is reported in the *Berecht d. Deutsch. Chem. Gesell.* to have succeeded in manufacturing cocaine from benzoyl-ecgonin, a body previously discovered by himself. He proceeds in the following manner:—Several grammes of benzoyl-ecgonin, with a slightly larger quantity of iodide of methyl and a little methyl alcohol, are heated in a tube to 100°. This mixture is digested in a water-bath, to expel the undecomposed iodide of methyl and methyl alcohol. From the syrupy residue cocaine is extracted as a hydriodate. From this salt pure cocaine, dissolving at 98°—the same as natural cocaine—is produced. The artificial substance is found to answer all tests.

#### COCAINE IN OINTMENTS AND SUPPOSITORIES.

COCAINE being insoluble in oily and fatty substances it is advisable, in cases where it has to form an ingredient of a pomade or suppositories, to first dissolve it in oleic acid, and afterwards to add the other substance to it by small quantities at the time. Treated in this manner the cocaine will assimilate itself with the greasy substance, and a homogeneous preparation will be obtained.—*Journ. de Pharm. et de Chimie.*

#### MAGNESIA FROM SEA-WATER.

M. M. SCHLÖSING has submitted to the *Académie des Sciences* a process for obtaining magnesia from sea-water at very little expense. The magnesia is precipitated by lime; after resting, the bulk of the water is decanted off; the residue is poured on sand-beds, whereon a crust of magnesia is left. This is impregnated with a certain proportion of sea-salt, which can be entirely removed by repeated washings in fresh water.

M. Schlösing recommends the use of magnesia for bricks



for furnaces in metallurgical work. To make these bricks it is necessary to calcine the magnesia to a white heat to obtain it at its greatest density; but in that state it will not bind, and he finds that by combining with this calcined magnesia a proportion of one-fourth (by weight), which corresponds to about one-half by volume, a magnesia which has been calcined only to redness, a substance is obtained which will stand any heat or pressure without cracking or crumbling.

#### URETHAN.

THE product commercially known as "Urethan" is ethyl-urethan, the ethylbether of carbaminic acid. Dr. G. Vulpinus, in the *Archiv. der Pharmacie*, gives the following description of this substance:—"Urethan appears in crystals of the shape of columns or tables almost without odour, and of a faint saltpetre taste. Its point of dissolution lies between 49° and 50°; that of boiling, at 170°; which is also its point of volatility if pure. At ordinary temperatures urethan dissolves in 1 part of water, 0.6 of alcohol, 0.6 of ether, 1.3 of chloroform, 3 of glycerine, or 20 of olive oil. Its aqueous solution is neutral in reaction. If heated with concentrated sulphuric acid it effervesces violently owing to the escape of carbonate. These properties of urethan are also tests for its identity and purity, the point of dissolution being of especial importance in view of the recent appearance in the market of a urethan which requires a higher degree of heat for its solution, and another variety dissolving at 44°, and containing a very considerable proportion of water.

#### COPAIVI EMULSION (VAN DE WALLE).

THE author emulsionises copaivi balsam according to the following recipe:—Balsam of copaivi, 50; white sugar, 25; honey, 25; distilled water, 5; essence of mint, 0.5; carmine (to colour), q.s.

The balsam, sugar, honey, and water are mixed together in a basin, and slightly heated for ten minutes, with constant stirring. The essence and colour are added when the mixture is completely cold. The preparation forms a red gelatinous product, almost entirely devoid of the odour of copaivi.—*Drugg. Circular*.

#### BANKRUPTCY.

GEORGE WILLIAM BENSON, chemist and druggist,  
157A Great Portland Street.

THE first meeting of the creditors under this failure was held before Mr. G. Wreford, an assistant official receiver, on December 3. The receiving order was made on Nov. 12, and the statement of accounts shows gross liabilities 614*l.* 14*s.* 3*d.*, of which 608*l.* 9*s.* 3*d.* is expected to rank, and assets 129*l.* 16*s.* 3*d.*, showing a deficiency of 478*l.* 14*s.* The debtor commenced business upon his own account in August last, with a capital of 200*l.* lent him by his father, now included in his liabilities. His father, he states, also guaranteed the balance (220*l.*) due to a creditor for fitting up the premises. The failure and deficiency is attributed to expenses incurred in commencing and establishing the business, which, he alleges, he started on the understanding that he would obtain further assistance from his father, Mr. Stokes, Bedford Row, now appeared for the debtor, and offered a composition of 5*s.* in the pound, payable in four, eight, and twelve months. The Chairman said that there was not a quorum of creditors present, and, therefore, no resolution could be passed, but if those creditors who were present were disposed to accept the composition, he had no objection to adjourning the meeting for a short period. Mr. Stokes said that he had had an interview with the debtor's father, but he had refused to have anything whatever to do with the matter. He thought, however, that he should be able to secure the composition to the satisfaction of the creditors. After a short discussion the meeting was adjourned to December 18.

Appended is the list of creditors:—

	£	s.	d.
Allen & Hanbury, Lombard Street .. ..	12	0	0
Benson, Wm., Bradford .. ..	200	0	0
Hawke, W., & Son, Great Wild Street .. ..	220	0	0
Herrings, Messrs., Aldersgate Street .. ..	49	17	5
Maw, Son & Thompson, Aldersgate Street .. ..	44	0	0
Newberry, F., & Son, King Edward Street, E.C. ..	33	15	9
Silverlock, H., Blackfriars Road .. ..	24	19	11
United Telephone Company, Cannon Street ..	20	0	0



#### SALE OR RETURN.

WALTON v. WHEELER.

THIS was an action brought in the City of London Court, November 23, before Mr. Harrison and a jury, by Mr. Thomas Walton, chemist, 204 Haverstock Hill, N., against Mr. J. Wheeler, chemist, 100 High Street, Ilfracombe, to recover the sum of 18*s.* 9*d.* alleged to be due for three dozen bottles of a patent marking-ink called "Flora Nigra," with a sketch in frame.

The defendant entered a special defence in these terms:—"In complete ignorance of county court procedure, but in conformity with what I deem to be the instructions at back of summons, I write to inform you that I shall defend my absolute non-liability for this claim, and upon the grounds that:—

"(1) The claim is for a special kind of marking-ink of which I knew nothing, and which I absolutely declined to give plaintiff an order for.

"(2) That my reply to plaintiff's solicitation to order was that I never stocked specialties of any kind whatever, until a demand had first been created for them.

"(3) That plaintiff thereupon asked as a favour that I would allow him to send an etched specimen card for display in the window, in order to create such demand by the time he again came round.

"(4) That the specimen card, together with a supply of ink (presumably sent to meet any possible inquiries for it that might arise) was received, and the card exhibited in window as promised.

"(5) That upon plaintiff next calling, on March 19, 1884, I tendered payment of the one bottle sold, and requested removal of specimen card and remainder.

"(6) That plaintiff declined to receive such payment, upon the ground that I should find no mention of their having been sent on sale marked upon the invoice.

"(7) That, believing the plaintiff's *bona fides*, I did not at the time of the receipt of invoice regard or notice the absence of any statement upon it that the specimen card and ink were sent at plaintiff's request and risk.

"(8) That upon plaintiff declining payment of the one bottle sold, I at once (March 19, 1884) forwarded to his address, at a cost of 1*s.* 3*d.* for carriage, the whole of the unsold portion of the consignment, together with payment for the one bottle which had been sold.

"(9) That the same or any portion of same has not again been received by me.

"(10) That the above statements I am prepared to make on oath."

The plaintiff said he was the proprietor of the "Flora Nigra" patent marking-ink. In August, 1882, he was in Ilfracombe, and called upon the defendant in order to introduce "this specialty" or preparation. Defendant was shown a sample, and was very much pleased with it. The sketch (produced) was etched upon calico, and was done by his (the plaintiff's) own artist, and was supplied to all his agents. It was to show the quality of the ink. The sketch he suggested for the defendant was something artistic, as he lived in a fashionable place and had only recently opened his shop. The defendant accordingly chose a landscape. The profit on the ink was cent. per cent. He (the plaintiff) suggested that the defendant should take a gross, but he said that was too much, and eventually ordered three dozen bottles. He said that would be sufficient to start with, and as he had goods from Messrs. Herring, of Aldersgate Street, every week, the order could easily be renewed. The invoice was posted three days before the ink was sent to Messrs. Herring. His terms were payment on the journey. He took all the fashionable



places himself, and as a rule he did not visit them for eighteen months or two years. He gave his customers the benefit of credit for that period. He did not ask payment of the account, for which he now sued, until March, 1884. It was not his custom to demand payment before he went on his journeys. When he saw the defendant in March, 1884, he expressed the hope that he had done well with the ink, to which he replied that he had not been successful with it, adding that the Ilfracombe folks were very peculiar people. (Laughter.)

His Honour: You mean that they did not appreciate your ink?

Plaintiff: Apparently they did not. You see it is a new thing.

His Honour: That is obvious from the adjective you use. (Laughter.) I must say it is rather singular that a respectable chemist should come all the way from Ilfracombe to London to defend an action for 18s. 9d.

Defendant: I resist the claim on principle, just as I would a man who put his hand in my pocket. I have been here two days.

In cross-examination, the plaintiff said the defendant liked the preparation when he saw it. He could not say whether the defendant remarked at the time that he had never heard of the ink.

Defendant: Did I say it was my invariable rule never to stock specialties until there was a demand for them?

Plaintiff: You did say afterwards something of the kind.

Defendant: Did you name two persons who, you said, had had a large sale for your ink simply by exposing the etchings?

Plaintiff: I may have said something to that effect.

Defendant: In reply to your statement that these sales had resulted from the exposure of the etchings, did I say, "You create a demand, and I will sell the ink"?

Plaintiff: You did not.

Defendant: Did I say, "Give me an etching in order to create a demand, if possible, by the time you come round again"?

Plaintiff: No.

Defendant: When did you send the etching and invoice?

Plaintiff: On November 27, and the ink was delivered to Messrs. Herring on the 30th of the same month.

Defendant: What was the cause of the delay?

Plaintiff: I was on an eight weeks' journey, and besides, the etchings are hand done and require time. I was desirous of giving you a good thing, as your business is a new one.

In answer to the claim, the defendant said he never promised to pay 18s. 9d. for the ink. There was a distinct understanding to the contrary. The plaintiff called upon him to solicit orders, and he told him he never stocked specialties. The plaintiff then offered to send an etching, and two months afterwards, to his (the defendant's) surprise, three dozen bottles of the ink came per Messrs. Herring. The ink was never ordered.

His Honour: You swear that?

Defendant: I do. I thought he had sent the goods on his own initiative in order to meet any demand that might arise. The usual time for travellers to come round is six months; but men of this stamp take advantage of the excursion tickets, and do not come round for two years sometimes.

His Honour: Have you got the goods now?

Defendant: Oh, no; I sent them back in 1883, with the exception of one bottle which was sold.

Plaintiff: If the goods were sent in the way you allege, the invoice would be endorsed "on sale or return." Because you were not successful in selling the article you deny the order. I am ashamed.

His Honour: You need not be ashamed or surprised, because according to his account you tried to force your ink upon him.

Plaintiff: This was an ordinary sale, and the invoice was sent in the usual course of business. Why was it not returned?

His Honour: Do you think that people are to take the trouble of returning all the rubbish sent to them?

Plaintiff: That is an unfair way of putting it.

His Honour: If a man sends me goods I did not order I would not think of returning the invoice.

After the learned judge had summed up, the jury returned a verdict for the defendant, who was allowed 6*l.* 11*s.* costs.

His Honour (addressing the jury): You have in my opinion done quite right. My impression is that the plaintiff tried to force this ink upon the defendant. I am afraid it is a common practice, and nothing can be more reprehensible.

Plaintiff: I thoroughly disagree. It is an unfair statement.

His Honour: I do not want to hear anything more from you. The case is disposed of.

#### THE TITLE "MONTSERRAT."

MESSRS. EVANS, SONS & CO. have lately obtained a judgment in the United States Circuit Court, Eastern district of Pennsylvania (*Evans v. Cunningham*) establishing their claim to the specific designation of lime-juice by the title "Montserrat." The terms of the judgment are as follows:—That an injunction issue herein perpetually enjoining and restraining the defendant, his clerks, attorneys, agents, servants, and workmen, them and each of them from making use of the word "Montserrat," or any word substantially like it, as a designation for lime-fruit juice, and for ever prohibiting him and them, and each of them, from directly or indirectly selling or offering to sell lime-fruit juice in bottles or other receptacles having attached thereto labels of any kind containing or consisting wholly or in part of the word "Montserrat," or any word substantially like it in sound or appearances; and from selling bottled lime-fruit juice in bulk, in barrels, or other receptacles, upon which shall be marked, or attached, or applied in any way the word "Montserrat," or any word substantially like it in sound or appearance; provided that nothing herein contained shall prevent the defendant from selling the true and genuine goods of the complainants in every lawful way.

#### A MEDICAL SLANDER.

IN the Queen's Bench Division on November 26 the case of *Tully v. Macgill* was decided. The plaintiff had been assistant to a medical practitioner at Poplar, and the defendant, who was also a medical man in the same neighbourhood, issued a circular imputing to the plaintiff that he was carrying on the profession of a medical man and surgeon although utterly unqualified, and that he had no licence in midwifery. He had also written a letter to the Medical Council, but no action had been taken upon it. The alleged slander was a statement said to have been made to one of the plaintiff's patients. The plaintiff admitted that he had no medical or surgical diploma, but he submitted that the circular was libellous, as it imputed that he was not qualified to act in midwifery cases, while in such cases no legal qualification was necessary. For the defence the circular was justified, on the ground that the plaintiff had been fined under the Apothecaries Act for an offence under the statute. The jury gave a verdict for the plaintiff for 250*l.*

#### TRADE NAMES—ESKELL *v.* CLIFFORD.

MR. JUSTICE CHITTY, sitting in the Chancery Division of the High Court of Justice, had this case before him for several days last month, and gave judgment on November 19. The action was brought by the plaintiffs, who are dentists, against the defendants, who are in the same business, and raised the question as to whether either had an exclusive right to use the assumed name of "Eskell." The parties to the case are said to be cousins. The plaintiffs were formerly named Abrahams, and they have for a long time conducted their business in London under the style of "Eskell & Sons," or "Messrs. Eskell." They asked for an injunction restraining the defendants, who are also in business in London, from using those names. The contention of the defendants was, that they were entitled to use any name they chose. Mr. Thomas, Q.C., and Mr. Gatey appeared for the plaintiffs, and the defendants were represented by Mr. Whitehorn, Q.C., and Mr. Rosenthal. His lordship held that the plaintiffs were not entitled to the injunction they asked, but said that, as one of the provincial managers of the defendants had been proved to have made a misrepresentation to one of the plaintiff's customers, he must be restrained from doing any such thing in future. The defendants gave an undertaking that the person in question would make no further false representations.



## TRADE-MARKS APPLIED FOR.

THE *Trade Marks' Journal* publishes the following notice:—"Any person who has good grounds of objection to the registration of any of the following marks may, within two months of the date of this journal, give notice in duplicate at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1883, of opposition to such registration." All communications relating to patents, designs, or trade marks to be addressed to H. Reader Lack, Esq., Comptroller-General of Patents, Designs, and Trade-marks, Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C.

*From the "Trade Marks Journal," November 18, 1885.*

- ANAPNINE, for a chemical substance prepared for use in medicine and pharmacy. John Richardson & Co., Leicester. 44,671.
- AUSTIN'S POROUS DISINFECTOR, for an apparatus for diffusing disinfectants. A square label containing the three words above mentioned. F. J. Austin, 61 Wool Exchange, Coleman Street, E.C. 44,708.
- ST. LUCIA SALINE, an oblong ornamental label setting forth the origin and qualities of a non-alcoholic and non-aërated beverage. Macnochie Bros., Lowestoft. 45,033.
- ORILLIAN, for certain mineral and aërated waters. Soyer & Co., Limited, 11 Queen Victoria Street, E.C. 45,327.
- HORSESHOE, bearing certain words in Italian, and in the centre the monogram F.M.F., for non-alcoholic fruit juices. Fr. Marangolo & Figli, Messina, Italy. 45,397.
- HOLLOWAY'S PILLS and HOLLOWAY'S OINTMENT, by the firm trading as Thos. Holloway, 78 New Oxford Street, London. 45,556 and 45,557.
- Round label, black ground, white clover leaf in centre, bearing the name and address of the manufacturer, underneath the label an ornamental border; for lozenges and salts made from natural mineral waters. Cie. Fermière de l'Etablissement Thermal de Vichy, 8 Boulevard Montmartre, Paris. 46,143.
- Round label, black ground with the words "Propriété de l'Etat Hauterive Vichy," open centre; for natural mineral waters. Cie. Fermière, as above. 46,155.
- Round label, same as above, with the word "Hauterive" cut out; for natural mineral waters. Cie. Fermière, as above. 46,158.
- IDRIS, for mineral and aërated waters, natural and artificial, including ginger-beer. Idris & Co., 10 Ascham Street, Kentish Town, London. 46,692.
- Figure of ballet-dancer with rod and star, for caudles, nightlights, and illuminating oils. S. Clarke, Child Hill, London, N.W. 46,773.
- Soldier on horseback, galloping, for chemical substances used for agricultural, horticultural, veterinary, and sanitary purposes. N. Savary, 33 Place St. Denis, Amiens, France. 46,898.
- DR. JOHNSON'S DIGESTIVE PILLS, circular label containing the above words, manufacturers' address, and dose. Morris Banks & Co., 2 High Street, Birmingham. 43,992.
- SCOTT'S EMULSION OF COD LIVER OIL, an oblong label representing a fisherman carrying cod-fish by a rope over his shoulder, with the name of the medicine and the words "Pleasant to the taste;" for emulsions of cod liver oil with hypophosphites. Scott & Bowne, Snow Hill, E.C. 47,296.
- LAVENDER SMELLING SALTS, a square label bearing the words "Invigorating lavender smelling salts, or salts of lavender," above a crown. W. S. Thompson, trading as The Crown Perfumery Co., 49 Old Bailey, E.C. 47,419.
- DERMALINE, for a chemical product of petroleum for use in medicine and pharmacy. A. Palliser & Co., 21 Lime Street, E.C. 47,477.
- ALVAIRNE, in facsimile of writing, for a tablet for the skin and for hair restorer. J. J. Taylor, 781 Fulham Road, S.W. 47,471.
- CONDY'S FLUID, for a chemical preparation used for sanitary purposes. Condy & Mitchell, Limited, 67, 68 Turnmill Street, Clerkenwell, London. 47,487.
- BATES' SULPHUR SALT, a label with ornamental border bearing the above words; for an effervescent powder containing sulphur, its solution resembling Harrogate water. F. W. Bates, Brook's Bar, Manchester. 47,498.
- Oblong label with representation of Indian idol on dark ground, above, on white ground, the words "Volkart Brothers, Bombay, Sole Importers;" for chemical substances used in manufactures, photography or philosophical research, and anti-corrosives. Volkart Bros., Winterthur, Switzerland. 47,556.
- STYXINE, for marking, writing, or stamping inks; the above word and underneath, "Black as the styx and sticks in!" A. A. Andrew, 116 Chancery Lane, E.C. 47,558.

GEORGE STRUTT'S LOTION AND OINTMENT, a round label, having in the centre a representation of a human foot, with the letters G.S., and the name of the medicine in circle; for medicines, not including corn and bunion plasters. George Karp, trading as George Strutt, 22 Charlotte Street, Rathbone Place, W. 47,578.

TRIPOLINE, for a paste or pomade for polishing metals, a powder for polishing knives and plate-powder. The Leicester Utility Co., 10 Yeoman Lane, Leicester. 47,643.

Round label with representation of three workmen; for medical and pharmaceutical preparations. F. J. Yeatman, 141 Kentish Town Road, London. 47,725.

THE COUNTESS OF LEICESTER'S BOUQUET; for a perfume. E. J. Pratt, Great Yarmouth. 47,726.

Representation of a hand holding a vaccine tube; for vaccine, human or animal, and pin-points. The Association for the Supply of Pure Vaccine Lymph, 12 Pall Mall East, S.W. 47,747.

SANITAS, for Sanitas oil, used in manufacture of other oils, varnish, and soaps, also resins prepared with Sanitas oil (47,899); for earthenware, terra-cotta, bricks, and tiles (47,901); for furniture cream and plate-powder (47,904). The Sanitas Co., Limited, 2 Letchford's Buildings Three Colt Lane, Bethnal Green, E.

*From the "Trade Marks Journal," November 25, 1885.*

SOCIETY BOUQUET, an oblong fancy label, with scroll bearing description of the perfume and address of the manufacturers. Sharp Brothers 12 Southampton Row, W.C. 42,075.

LIGHTNING REVIVER FURNITURE POLISH, a double label, bearing a representation of lightning on dark background, on the one side name and description, &c. T. S. Clarence, 51 Southampton Row, W.C. 46,136.

Divers ornamental labels, round, square, or oblong, for lozenges made from salts extracted from natural mineral waters (46,139, 46,142), for natural mineral salts for use as a beverage (46,144), and for natural mineral waters (46,140, 46,147, 46,148, 46,149, 46,150, 46,151, 46,152, 46,153, 46,154). By the Cie. Fermière de l'Etablissement Thermal de Vichy, 8 Boulevard de Montmartre, Paris.

ST. JAMES'S BOUQUET, a plain label with narrow border, bearing the above words and "Extra Concentrated," also manufacturers' address and facsimile of signature. N. Price & Co., 1 Ravenscroft Park, High Barnet. 46,841.

Label, with narrow border, bearing on either side, in top-corner, the words "Gesetzlich Geschützt" on a scroll, in centre a coat of arms and the words "Original-Haus, Anno 1733," and underneath the address of manufacturer and facsimile of signature, for perfumery. By J. M. Farina, 54 Alter Markt, Cologne. 47,281.

A Medal with representation of George IV., surmounted by the words "Guinea Gold," for perfumery, not including dental preparations. Lever Bros., Warrington, Lancashire. 47,341.

A PHENIX, for plumbago crucibles. A. Ryle, Tauners Hill, Deptford, S.E. 47,404.

WHITE FROST, an ornamental box, bearing the above words on black background, for dried white of egg for culinary and domestic uses. R. O. Bischof, 30 Brooke Street, Holborn, E.C. 47,825.

SANITAS (48,108), for medicines for veterinary uses, (48,109) for candles, detergents, and lubricants. The Sanitas Co., Lim., 2 Letchford's Buildings, Three Colt Lane, Bethnal Green, E.

*From the "Trade Marks Journal," December 2, 1885.*

GORDON'S EXTRACT, white letters on dark ground, for a patent medicine. Gordon & Co., 11 Long Lane, E.C. 38,100.

SALMON'S CITY MEAT BISCUITS FOR DOGS, ornamental label, containing the above words, and representation of dogs. J. Salmon, 36 Darnley Road, Hackney, E., and W. R. Clarke, Anchor Biscuit Works, Limehouse, E. 43,389.

PEPTONIC GINGER ALE, label, with plain black border, bearing name of medicine and manufacturer. Davenport & Savage, trading as the Goldstone Mineral Water Co., Brighton. 45,025.

Representation of statue, name of manufacturer on either side, for mineral and aërated waters. Middlesbro' and District Mineral Water and Bottling Co., Lim., Middlesbrough. 47,121.

Round label, surrounded by clasped belt, bearing inscription, landscape in centre, for honey. W. N. Griffin, Freshford, Bath. 47,152.

WATSON'S LAWN SAND. Watson, Walker & Quickfall, Leeds. 47,225.

Manufacturers' name in circle, dog biscuits. James Greenwood, 57 New Church Road, Camberwell, S.E. 47,251.



**SUNBEAM SOAP** (44,495), **SUNDIAL SOAP** (44,497), **SUNFLOWER PERFUMERY** (44,499), **SUNBRIGHT SOAP** (44,501), **SUNSHADE SOAP** (44,503), **STARLIGHT** (44,985), **MOONLIGHT** (44,987), **RISING SUN** (45,178), **SHIP CANAL** (46,973), for perfumery and perfumed soaps; **SUNBEAM** (44,494), **SUNDIAL SOAP** (44,493), **SUNFLOWER STARCH** (44,498), **SUNSHADE SOAP** (44,502), **SUNSET** (44,982), **STARLIGHT** (44,984), **MOONLIGHT** (44,986), **RISING SUN** (45,177), **SHIP CANAL** (46,972), for common soaps, candles, oils, matches, and preparations for laundry purposes; **GUINEA GOLD**, over medal of George IV. (44,354), **GOOD CHEER SAUCE** (45,423), **HARVEY-T-HOME**, fancy label with the above words (45,908), **SHIP CANAL** (46,971), for substances used as food, or as ingredients of food; **SUNLIGHT** (44,976), **SUNRISE** (41,978), for candles, oils, and matches; **SUNLIGHT**, fancy label (square), with representation of sun in left top corner, and words on dark ground (44,979), for starch; **SUNLIGHT** (44,981), **SILVER KING** (45,017), for preparations for cleaning and polishing metals; **GOOD CHEER SODA WATER** (45,424), for mineral and aerated waters; **SUNLIGHT BLACK LEAD**, ornamental oblong label (45,562). Lever & Co., Wigan and Bolton.

**A FILTER**, with words "Pure and unaltered," for mineral and aerated waters. W. Scott, 141 Gooch Street, Birmingham. 47,860.

**COUGHALINE**, label, with facsimile of manufacturer's signature, for a medicine. T. M. Sawyer & Co., 33 Hill Street, Ratland Gate, S.W. 47,834.

**WISEMAN'S INFANTS' COMFORT**, for a medicine. E. H. Wiseman, 152 Milton Road, Gravesend. 47,951.

**MINEROLEUM** (48,093), **MINEROLIN** (48,094), labels bearing the above words, preceded by three arrows tied together, for medicines. Jas. Woolley, Sons & Co., Market Street, Manchester.

**EUREKA COUGH**, for sweetmeats, drops, or tablets. R. T. Watson, 109 High Street, Cheltenham. 48,110.

### From the "Trade Marks Journal," December 9, 1885.

**SUNLIGHT**, in dark letters, with cloud and rising sun in background, for starch (43,406); perfumery (44,491). **SUNLIGHT**, twice repeated in letter S, for knife-polish, furniture cream, and other preparations for cleaning and polishing metals (44,989). **GIANT LIFTING GLOBE**, with lever resting on anvil, bearing inscription "Quality," for substances used as food (45,724), preparations for laundry purposes (45,725), and perfumery (43,726). Lever & Co., Wigan and Bolton.

**BORAX**, fancy label, bearing the above word in dark letters on ground of borax crystals, also description of preparation and other printed matter, for a chemical substance used for antiseptic and sanitary purposes (44,592), for detergents and saponaceous preparations (44,693), for toilet articles (44,694). **BORAX EXTRACT OF SOAP**, ornamental label, bearing the above and other words, and representation of borax crystals, for extract of soap (44,695), for extract of soap prepared for use as a toilet article (44,696). **BORAX DRY SOAP**, oblong ornamental label bearing the above words and other matter, with representation of borax crystals, for dry soap (44,697), for dry soap prepared for use as a toilet article (44,698). Jesse Ascoug, Handsworth, Staffs.

**READING RELISH**, oblong fancy label, with plain border, bearing representation of sailor and banner over printed matter, for a sauce. J. M. Morris, Market Place, Wokingham. 47,216.

**DEMULCENT SYRUP OF CAMPHOR**, plain oblong label, bearing the above words and other printed matter, with trade mark, for a medicine. A. S. Gordon, 35 Ranelagh Road, Dublin.

**BAILEY'S PECTORAL COUGH MIXTURE**, fancy label, bearing name and description of medicine and address of manufacturer. C. Bailey, 19 Carter Gate, Nottingham. 47,318.

**SANITAS**, for fumigators and respirators. Sanitas Co., Lim, 2 Letchford's Buildings, Three Colt Lane, Bethnal Green, E. 47,900.

**FIGURE OF SLAVE**, for mineral and aerated waters. Kerswell & Grafton, Exeter. 47,911.

**AMBOLINE**, for medicated toilet preparations. A. P. Towle & Son, 75 Back Piccadilly, Manchester. 48,026.

**CALVERT'S No. 5 CARBOLIC SOAP**, on bi-coloured label with plain border, for common soap (48,131), for perfumed soap (48,132). F. C. Calvert & Co., Bradford.

**COUNT D'ORSAY**, for preparations for the hair. F. Mirus, 36 Gloucester Road, Kew, Surrey. 48,195.

**INGLUVIN**, for a medicine. Wm. R. Warner & Co., 1223 Market Street, Philadelphia, U.S.A. 48,123.

**WINTERBINE**, for an aerated water. Scott & Co., Hurst Street, Belfast. 48,233.

**THERAPION**, on dark background, with ornamental border, for a medicine. R. Johnson, 43 Holford Square, London. 43,240.

## NOTE ON TINCTURE CONVALLARIA MAJALIS.

By A. L. DORAN, BRAY.

HAVING reason to suspect from the colour, taste, and smell that a sample of this tincture supplied us by a Dublin firm consisted in great part, if not altogether, of tinct. digitalis, the following steps were taken in order to determine the point:—

A sample was obtained from a first-class London house, and a small quantity was made from roots grown by ourselves, the strength being 1 in 8 of proof s. v. r.

The three tinctures bore the following colour relation:—

Suspected	London	Noster
Dark greenish brown.	Much lighter than suspected.	Decided red tinge.

The following experiments were then made:—

A small quantity of each tincture was placed in a test tube, and also some B.P. tinct. digitalis in another, for comparison.

An equal bulk of tinct. ferri perchlor. was then added to each, and they were allowed to stand for about an hour, with the following result:—

Suspected tincture becomes black, and nearly opaque.	
Digitalis	" " " " " "
London	" " " light greenish brown, and transparent.
Noster	" " " " " "

The former experiment repeated, with the substitution of a solution of acetate of lead for the tinct. ferri, gives with—

Suspected tincture	..Copious yellowish precipitate settles to bottom.
Digitalis	" ..Ditto, but slightly darker.
London	" ..Scanty light-brown precipitate floats on top of clear liquid when first formed.
Noster	" ..Ditto, with reddish tinge.

It is to be inferred from these results that the article supplied for tinct. convallaria is either a weak or diluted tincture of digitalis; and we may add that the substitution of such a poisonous preparation (in place of one of which it has been stated as an advantage that it is not only non-poisonous but possesses a tonic effect in doses of 4 drachms) is most culpable negligence, whether it be accidental or deliberate.

## Foreign and Colonial.

THE CHEMICAL SOCIETY OF TOKIO have resolved in future to print all their reports in Latin characters instead of in Japanese, as hitherto.

A PETROLEUM SPRING NEAR CARLSRUHE.—Near the village of Reichartshausen, not far from Carlsruhe, a petroleum spring has come to light. There is no little commotion in the district in consequence.

THREE Spanish-American young ladies, having studied pharmacy in New York, and passed their examinations, have recently started business on their own account in that city. The senior partner of the firm has been appointed corresponding member of the Madrid College of Pharmacists.

COCAINE FACTORIES IN LIMA.—Meyer & Hafemann wholesale druggists in Lima, Peru, are erecting works in that city for the purpose of manufacturing cocaine from the fresh leaves. A French pharmacist of Lima, Mr. Bignon, has likewise undertaken the manufacture of cocaine, and it is said with good results.

FRENCH EXPORTS of compound medicines (*médicaments composés*)—which means, generally, patent medicines—were valued in 1884 at 13,000,000*fr.*, which is about the annual average. Sulphate of quinine was exported in 1884 to the value of 3,792,880*fr.*, against 833,840*fr.* in the preceding year. Perfumery reached a total of 9,000,000*fr.*, and common soap reached over 8,000,000*fr.*

FOREIGN COMPETITION IN PEPPERMINT LOZENGES.—At present English peppermint lozenges find a large sale on the Continent, and makers there cannot succeed in displacing them. But an intelligent Austrian, Egger by name, is reported to have visited us on purpose to find out from confiding manufacturers "how the trick is done," and having



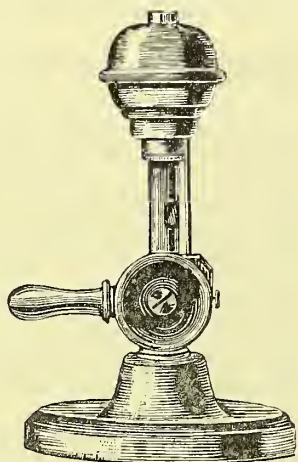
mastered the secret has betaken himself back to the Continent. "We shall now," the *Pharm. Post* somewhat Irishly observes, "be able to make English peppermint lozenges in Austria."

**CHINESE CAMPHOR.**—Reporting on the trade of Tamsui, China, the English Commissioner of Customs says that the trade in camphor is represented in the returns by such an insignificant figure that there is great fear of its total extinction in the near future. The immediate cause of its rapid collapse may be traced to the eagerness of the Chinese to acquire by all possible means as much territory as possible. During the last three years hills thickly wooded with camphor trees have been burned over by the Chinese, in order to compel the savages to withdraw. Destruction on so large a scale naturally tells on the camphor trade. Forests of camphor trees do still exist farther inland, but the absence of all beaten tracks across the mountains renders them difficult of access.



#### BUNSEN BURNER, WITH SELF-IGNITING TAP.

THE apparatus represented in the woodcut is fitted with two tubes, viz., the ordinary main-tube pipe and a narrower tube, also fed by the gas-tap, and terminating just below the top opening of the main-tube in a globe having air-holes at the lower end. Upon lighting the gas in the main-tube, that which leaves the narrow tube is simultaneously ignited, and when the gas-tap is closed the small flame in the globe continues to burn. As soon as the tap is partly turned on



again this small flame becomes stronger, and, elongating, lights the gas escaping from the main-pipe, but the tap being turned on full the flame is again reduced to very small proportions. At the foot of the burner two small regulating screws are fixed, the one having for its object to elongate or reduce the flame of the lesser tube while the tap is being closed, and the other regulates the flame in the smaller tube when the large Bunsen flame is not burning. It is, however, only rarely that it becomes necessary to manipulate these screws at all. The size of the flame in the burner can be regulated by turning the disc connected with the tap. The lamp is manufactured by Ernst Düby, of Berlin, and we take the description from the *Chemiker Zeitung*.

#### YE OLDE LONDON SWEETE SCENTES.

MESSRS. OSBORNE, BAUER & CHEESEMAN, of Golden Square, have made a happy hit in their "Olde London Scentes." These are capped and labelled in old-fashioned style, and in cases of three. Assorted bottles make a very popular present. The contents of the bottles are as "goode and lasting" as modern science can make them. The same firm introduce "Cristin's Ruby Lip Balm" in 6d. and 1s. collapsible tubes. The title is registered, and the plan of supplying lip-salve in such convenient form is a good one.

#### LOEFLUND'S PRESERVED MILK.

MESSRS. LOEFLUND & Co. have brought to this country a new brand of preserved milk from the Bavarian mountains. We find it more fluid than the other condensed milks we have tried, and at the same time much richer in flavour, scarcely to be distinguished from the finest new cream. We are assured that neither sugar nor chemicals of any kind are used in the process of preservation.

#### CHOCOLATE-MEAT.

MESSRS. BARCLAY & SONS are English agents for an excellent combination of meat powder with chocolate, known as "Chocolat Rousseau à la Poudre de Viande." The Chocolate conceals almost entirely the flavour of the meat, but we are told that the tablets represent 80 per cent. of their weight of muscles of fresh beef, or 20 grammes in each. They can be eaten "neat," or made into a beverage. Certainly they are most palatable, and the combination should be highly nutritious. The tablets are sold in boxes of ten at 2s. retail.

#### CADBURY'S CHARCOAL CHOCOLATE CREAMS.

MESSRS. CADBURY BROTHERS have sent us a sample of their "Charcoal Chocolate Creams." We do not know whether these are quite new, but we should judge that this is an excellent form of the favourite sweetmeat for chemists' sale. The charcoal in no respect detracts from the delicious flavour of the creams, but must add to their wholesomeness. Messrs. Cadbury add a sample of their well-known pure "Cocoa Essence," and of some of their other forms of chocolate. It would be superfluous to comment on the quality of this eminent firm's manufactures.

**TO CLEAN WINDOWS.**—A good cleaning-powder for show-windows, which leaves no dirt in the joints, is prepared by moistening calcined magnesia with pure benzine, so that a mass is formed sufficiently moist to let a drop form when pressed. The mixture has to be preserved in glass bottles with ground stoppers, in order to retain the easily volatile benzine. A little of the mixture is placed on a wad of cotton and applied to the glass plate. It may also be used for cleaning mirrors.

A meeting of the Executive of the South African Pharmaceutical Association was held at Wood's Hotel, Grahamstown, on October 21. There were present Messrs. J. A. D. des Vages, M.L.A. (Willowmore), President; A. E. Austen (Cradock), Vice-President; G. E. Cook (King William's Town), Hon. Secretary and Treasurer; A. Davison (Kimberley), F. Constance (Port Elizabeth), and E. Fleischer (Humansdorp). Correspondence was read bearing upon the proposed Pharmacy Act, and it was resolved that a Bill be presented at the next session of Parliament for the protection of the rights and interests of chemists in this colony.



## Obituary.

**LEWIS.**—Mr. David Lewis died on the 4th inst. at his residence, Devonshire House, Prince's Park, Liverpool, after a long illness, of consumption. He was the founder of the great establishments in Liverpool, Manchester, Leeds, Sheffield, Birmingham, and New York, which have created such havoc among various retail trades. His first business experience was acquired in the ready-made clothing house of Hyam, in Liverpool. While quite young he managed and greatly extended this concern. In 1856, when thirty-two years of age, he commenced business on his own account as a boys' clothier in Bold Street, Liverpool. Acting upon the ready-money principle, and believing in large sales and quick returns, Mr. Lewis brought cheap and excellent clothing within the easy reach of the labouring classes. In 1878 Mr. Lewis purchased a block of buildings in Basnett Street, Liverpool, now known as the "Bon Marché," which he considerably increased in size, and there built up the business which has become so notorious. The Manchester business was established two years later, and the others mentioned in rapid succession. For the last few years Mr. Lewis has been in delicate health, and although compelled to withdraw from the more active share of the business, he maintained a close personal interest in the business of the firm. The direction of affairs has since devolved upon Mr. Cohen, who has conducted them with redoubled energy. Mr. Lewis was a large contributor to Jewish and other charitable institutions. He was in the 62nd year of his age.

**MICHELMORE.**—November 14, at 37 Fore Street, Totnes, Philip William Michelmores, chemist, aged 37.

## MARRIAGE.

**BACKHOUSE—FELLOWS.**—On September 2, at the church of St Michael and All Angels, North Kensington, W, by the Rev. E. Kerr Grey, LL.D., Incumbent, assisted by the Rev. Thomas Evans, curate, and the Rev. J. Becher, M.A., Hedley N. Backhouse, of Paris (Roberts & Co.), to Ida, eldest daughter of James J. Fellows, J.P., of St. John, New Brunswick, and 48 Bassett Road, North Kensington.

*Notices of deaths, marriages, removals, and changes in firms are published free if sent to us properly authenticated.*



[The following list has been compiled expressly for THE CHEMIST AND DRUGGIST by G. F. Redfern, Patent Agent, 4 South Street, Finsbury, London, and at Paris and Brussels.]

**Acid Bases for Aërated Beverages.**—14,002.—Nov. 17, 1885.—A. G. Brookes.—A communication from T. S. Nowell, United States.

**Azo Dye Stuffs.**—14,232.—Nov. 20, 1885.—E. Elsaesser.—14,424.—November 24, 1885.—J. Y. Johnson.—A communication from F. Bayer & Co., Germany.\* Improvements in the manufacture.

**Bicarbonate of Soda.**—14,365.—November 24, 1885.—J. Simpson, and E. W. Parnell. Improvements in the manufacture.

**Bleaching Liquor.**—13,436.—November 6, 1885.—J. Apsley and E. Lumb. A new or improved aërated bleaching liquor, and in apparatus for manufacturing the same.

**Bottle-cleaning Machines.**—13,527.—November 7, 1885.—G. Burges. Improvements in or applicable to machines for cleansing bottles.

**Bottles.**—13,158.—October 31, 1885.—L. Vallet. Improvements in connection with internally-stoppered bottles for containing mineral waters and other gaseous liquids.—13,536.—November 7, 1885.—A. B. Tutton. An improved irrigating attachment for bottles containing medical or other liquids.—13,813.—M. L. Macauley.—November 12, 1885.—Improvements connected with the stoppering of bottles, and in stoppers therefor.—13,910.—E. M. Knight.—November 14, 1885.—Improvements in blown-glass bottles and in stoppers for same, and in apparatus employed in the manufacture of such bottles and stoppers.—13,947.—November 16, 1885.—T. Sutcliffe.—Improvements in the mouths of glass bottles, earthenware, and other jars or receptacles, and stoppers for same.—13,966.—November 16, 1885.—T. Mason. Lock airtight stoppered bottle.—14,251.—November 21, 1885.—H. W. Robinson, C. J. Smith, and J. S. Howard. An improved bottle and stopper for soda water and other liquids.—14,294.—November 21, 1885.—D. W. Blaxter and S. G. Page. Improvements in screw-neck bottles and stoppers for same, having joints made of cork.—14,339.—November 23, 1885.—J. Edwards. Improvements in or applicable to bottles for aërated liquids.—14,453.—November 25, 1885.—J. F. Ryan. Improvements in bottles and in stoppers for same.—14,693.—November 30, 1885.—J. W. Dobson. Improvements in internal-stoppered bottles for holding aërated liquids and the like.

**Bottle-stoppers.**—13,072.—October 30, 1885.—F. Trotman. Improvement in bottle-stoppers.—13,157.—October 31, 1885.—L. Vallet. Improvements in internal stoppers for bottles.—13,450.—November 6, 1885.—F. T. Marwood. Improvements in arrangements for stoppering bottles.—13,528.—November 7, 1885.—G. J. Chambers. An improvement in stoppering bottles for ginger-beer, aërated waters, ale and stout, and the like.—13,605.—November 9, 1885.—E. W. Rippin. Improvements in bottle-stoppers.—13,838.—November 13, 1885.—G. Cooper.—An improved bottle-stopper.—14,106.—November 18, 1885.—F. J. Beaumont, London. An improvement connected with stoppering bottles, jars, and similar vessels, and of opening and closing them instantaneously.—14,133.—November 18, 1885.—G. F. Lütticke, London. An improved bottle-stopper.—14,158.—November 19, 1885.—J. Stow, London. An improved stopper for bottles to contain aërated waters.—14,366.—November 24, 1885.—F. A. Bird and J. B. Fenby, Birmingham. Improvements in stoppering bottles.—14,377.—November 24, 1885.—C. H. Boyne, Tiverton. Stoppers and bottles for aërated and other liquids.—14,470.—November 25, 1885.—H. Theaker and G. W. Staniland, Sheffield. Improvements in appliances for stoppering bottles.—14,621.—Nov. 28, 1885.—L. S. Mapleson, London. An improved bottle-stopper.

**Bottling-machines.**—13,369.—November 5, 1885.—J. F. Smyth, Belfast. Improvements in bottling-machines.

**Capsules.**—14,040.—November 17, 1885.—C. L. Jensen, London. Improvements in capsules for holding and administering medicines, wines, spirits, and the like.—14,189.—November 19, 1885.—P. Jensen.—A communication from G. G. Pohl, Prussia. A manufacture of capsules for containing medicinal matter, and which are not affected by the stomach juices, but dissolve in the intestines.

**Catheters.**—14,428.—November 25, 1885.—L. Casper, London. Improvements in the construction of catheters for the treatment of ailments of the urethra.

**Chemical Compound for Removing Rheumatism.**—14,182.—November 19, 1885.—S. Austin and S. Sellers, London.

**Combined Hairbrush and Comb.**—14,407.—November 24, 1885.—W. McMillan, Victoria.

**Cork-extractor.**—13,963.—November 16, 1885.—C. Weekes, Dublin.

**Corn-protectors.**—13,273.—November 3, 1885.—E. Ellenband, London.

**Couch for Surgical Operations.**—14,013.—November 17, 1885.—J. Kehoe, Dublin.



**Dental Instruments.**—14,515.—November 26, 1885.—A. Kirby, London. Dental instruments operated by electricity.

**Disinfectant.**—14,391.—November 24, 1885.—H. Endemann, London.

**Distilling Liquids.**—13,799.—November 12, 1885.—L. H. Pearce, London.

**Extracting Ammonia from Lyes.**—13,995.—November 16, 1885.—H. H. Lake.—A communication from The Verein Chemischer Fabriken, Germany.

**Feeding-bottle Regulator.**—14,665.—November 30, 1885.—C. J. Clark, London.

**Filters.**—13,660.—November 10, 1885.—W. C. Dickenson, London.

**Production of Azo Colours.**—13,790.—November 12, 1885.—T. Halliday, London. Improvements in the production of azo colours on cotton or other vegetable fibre.

**Prussic Acid.**—13,843.—November 13, 1885.—J. Grossman, Manchester. Improvements in or appertaining to the manufacture of prussic acid and its compounds.

**Purifying Naphthaline.**—13,804.—November 12, 1885.—L. A. Groth.—A communication from G. Link, Germany. A new or improved process for purifying naphthaline by the use of soap.

**Purifying Water.**—13,541.—November 7, 1885.—T. Archer, jun. An improved means or apparatus for effecting the filtering or purifying of water on its passage from one place or vessel to another.

**Separation of Phosphorus from Slags, &c.**—14,120.—November 18, 1885.—W. Thomlinson and D. Crawford.

**Sheep-wash.**—14,098.—November 18, 1885.—R. Morris and W. G. Little.

**Soap.**—14,380.—November 24, 1885.—R. Ross.

**Soda.**—14,027.—November 17, 1885.—A. P. Laurie. Improvements in the manufacture.

**Softening, &c., Water.**—14,372.—November 24, 1885.—A. Bell.—14,390.—November 24, 1885.—F. R. Lipscombe.

**Stop-valves for the Use of Chemical Liquids.**—14,494.—November 26, 1885.—W. T. Cortin.

**Sulphide of Zinc.**—13,462.—November 6, 1885.—J. B. Spence.

**Sulphites of Alkalies, &c.**—13,950.—November 16, 1885.—P. Hart.

**Sulphur, &c.**—14,364.—November 24, 1885.—E. W. Parnell and J. Simpson. Improvements in the manufacture or production of sulphur and sulphuric acid.

**Surgical Instrument for Extracting Bullets.**—13,929.—November 14, 1885.—J. E. Arnold.

**Syringes.**—13,600.—November 9, 1885.—P. A. Newton.—A communication from T. J. Moore and E. A. Warren, United States.

**Syringe Attachments.**—13,661.—November 10, 1885.—A. J. Boulton. A communication from H. R. Allen, United States.

**Toothbrushes.**—13,405.—November 5, 1885.—J. Parry.—13,490.—November 7, 1885.—H. W. Graham.

**Treating Alkaline Liquors.**—14,629.—November 28, 1885.—C. Wigg.

**Treating Copal, &c.**—13,472.—November 6, 1885.—A. & M. Mackay. Improvements in treating copal, kauri, sandrac, and other gum resins.

**Treating Substances Containing Alumina, &c.**—13,280.—November 3, 1885.—W. H. Watson.

**Treating Substances Containing Phosphoric Acid, &c.**—13,856.—November 13, 1885.—G. W. Bremner. A new or improved treatment of substances containing phosphoric acid and alumina for the manufacture of mineral gum and glue therefrom.

**Trusses.**—14,097.—November 18, 1885.—W. & W. A. Whiting.

**Washing Liquids, &c.**—13,922.—G. W. Bremner.

Specifications published during the month:—

Postage 1*d.* each extra.

1884.

- 13,475. G. G. André. Explosive compounds, &c. 4*d.*  
 13,842. E. Hazlehurst and others. Stoppering bottles. 4*d.*  
 14,031. F. Cook. Soaking, brushing, and rinsing bottles. 6*d.*  
 15,065. G. W. Chinnery. Making and supplying aerated drinks. 8*d.*  
 15,182. J. W. Kynaston. Manufacture of bisulphide of calcium, &c. 4*d.*  
 15,943. P. S. Langley. Boxes for containing and expelling powders. 6*d.*  
 16,326. W. Oldham. Filters, &c. 6*d.*  
 16,373. H. Codd. Packing rings and discs used for closing bottles or jars. 4*d.*  
 16,374. H. Codd. Bottles for aerated liquids. 4*d.*  
 16,600. H. W. Stevens. Stoppering bottles and jars. 6*d.*  
 16,633. W. Scantlebury. Washing bottles, jars, &c. 6*d.*  
 16,636. E. C. & F. M. Allan. Manufacture of acetic acid, &c. 6*d.*  
 16,705. A. Howatson. Treating water with lime, &c., for the purpose of purifying, &c. 6*d.*  
 16,706. A. Howatson. Separating solid impurities from water, &c. 8*d.*  
 16,989. H. L. Pattinson. Hydrates of barium and strontium. 4*d.*

1885.

38. R. C. Baker. Feeding-bottles. 6*d.*  
 151. L. Q. & A. Brin. Anhydrous oxide of barium. 4*d.*  
 156. L. A. Groth. Manufacturing the fluoride or double fluoride with sodium or potassium of aluminium. 4*d.*  
 259. T. D. Owen. Treatment of vat liquor for the elimination of sulphides and other impurities, &c. 4*d.*  
 312. J. S. Gisborne. Anti-fouling and preservative composition for coating ships' bottoms, &c. 4*d.*  
 341. L. White. Heating the contents of feeding-bottles, &c. 6*d.*  
 348. D. Rylands. Forming indents in glass bottles, &c. 6*d.*  
 349. R. W. Little. Stopper for bottles, &c. 6*d.*  
 361. J. T. Creasy and T. J. Wild. Stoppers for bottles containing aerated waters, &c. 6*d.*  
 368. F. B. W. Roberts. Gunpowder, &c. 2*d.*  
 377. I. R. Sharpe. Stoppers of bottles for aerated liquids. 6*d.*  
 545. T. R. Shillitto. Separating micro-organisms and their germs from liquids. 4*d.*  
 731. T. Twynam. Production of chlorine and hydrochloric acid from solutions of chloride of calcium. 4*d.*  
 744. J. C. Schultz. Bottle stoppers. 6*d.*  
 758. J. Rogers. Boxes for pomatum, &c. 2*d.*  
 781. E. Hall. Infants' feeding-bottles. 4*d.*  
 903. J. H. Jacobs. Filters. 4*d.*  
 1,144. W. E. Gedge. Purifying water. 4*d.*  
 1,723. W. H. Higgin. Manufacture of bichromate of soda. 4*d.*  
 3,803. H. J. Haddan. Colouring matters. 4*d.*  
 4,737. E. Woodham and P. Ockenden. Stoppers for bottles. 6*d.*  
 5,553. W. R. Lake. Treatment of alkaline silicates, &c. 4*d.*  
 5,945. A. French. Obtaining ammonium chloride and cyanogen compounds. 4*d.*  
 6,139. W. R. Lake. Starch. 6*d.*  
 7,226. A. J. T. Wild. Bottles, &c. 6*d.*  
 7,657. E. W. Parnell and J. Simpson. Separation of sulphuretted hydrogen from nitrogen. 6*d.*  
 8,198. F. G. Riley. Screw-neck bottles and stoppers. 6*d.*  
 9,414. W. Macrone. Dry colours. 2*d.*  
 10,501. W. P. Thompson. Bottle stoppers. 4*d.*  
 10,938. H. J. Haddan. Chemical fire-extinguishers. 4*d.*  
 11,258. D. D. Cattanaach. Manufacture, &c., of alcohol, hydrocarbons, and acetic acid. 8*d.*

1882.

916. G. Allix and H. Gardner. Closing the necks of bottles, &c. 1*s.* 3*d.*



## Personalities.

SIR JOSEPH HOOKER retires from the directorship of Kew Gardens, and Mr. W. T. Thistleton Dyer, F.R.S., has been nominated as his successor.

MR. AUSTIN has purchased from the executors the business of the late Mr. T. S. Johnson, chemist, Great Malvern.

MR. H. HAYCRAFT, late of 164 Wyndham Road, Camberwell, S.E., has removed to 126 Clapham Road, S.W.

MR. G. BARTON KENT, the head of the firm of G. B. Kent & Sons, the well-known brush manufacturers, who recently purchased the brush portion of the business of John Gosnell & Co., is at present on a business tour through the States and Canada, returning in January, 1886.

## Trade Notes.

MESSRS. PRONK DAVIS & Co., dealers in aniline, indigo, cudbear, and other colours, have removed from 41 Great Tower Street to 3 Trinity Place, Tower Hill, E.C.

\* \*

MR. J. J. HARVEY has disposed of the proprietorship of Harvey's toothache-pencils and Harvey's corn and wart pencils, together with all trade-marks and recipes to Messrs. Hockin, Wilson & Co., of 38 Duke Street, Manchester Square.

\* \*

THE Chemists' Aërated and Mineral Waters Association (Limited) have published a simple telegram code for ordering their waters in syphons and corked bottles. This code is published among our advertisements this month.

\* \*

MESSRS. SHARP BROTHERS, of Southampton Row, who have registered the title "Society Bouquet" for a perfume, have introduced the idea of printing the name of the retailer on the label, omitting their own name altogether.

\* \*

THE Board of Inland Revenue have objected to the separate sale of Stedman's teething-powders from the 11s. boxes, on the ground that the boxes contained so many bundles of powders. The difficulty has been overcome by supplying the powders loose in the box.

\* \*

WE have received a new Illustrated Price-current from Messrs. Ayerton & Saunders, of Liverpool. This is conveniently arranged for reference, the priced list being on left-hand pages, which are almost invariably faced by illustrations on the right-hand pages.

\* \*

FRIZZETTA is a happily-named specialty introduced by Mr. F. W. Bates, chemist, Brooks's Bar, Manchester, for the important purpose of keeping ladies' hair in curl. The requirements of civilisation are very numerous, and this one is not the most trivial of them. Several prominent actresses and beauties testify to the success of Mr. Bates' invention.

\* \*

MESSRS. HOCKIN, WILSON & Co. supply their menthol cones (the "Acme" brand) in pretty little glass-covered boxes, constructed so as to hang against a wall or in the window, forming, by means of the lid, an effective announcement. They have issued a new and reduced price-list for the various styles of their menthol cones.

\* \*

THE YORK GLASS COMPANY have added to their stock of phototype recess labelled shop-bottles a series of ribbed bottles, 10, 20, 30, and 40 oz., with red-ground labels, intended for poisons and dangerous preparations. These are made in white, blue, and actinic metal. Chemists would add to their own and their customers' security by using such bottles with discretion; and, as a further precaution, in many

cases it might be advisable to insist that the stoppers should be kept capped or tied over. In our notice of the company's new bottles last month we alluded to Mr. Woodhead as the manager. This was an error. Mr. Spence is the general manager, and Mr. Wilson manages the company's London branch.

## Trade Report.

THE following are the results of the Board of Trade returns for November:—

### Imports.

	Nov., 1884	Nov., 1885
Total value .. ..	£30,752,453	£29,883,768

### Exports.

	Nov., 1884	Nov., 1885
British and Irish produce ..	£17,704,213	£16,464,250
Foreign and colonial produce (partly estimated) ..	4,092,023	3,918,589

And below are the details affecting drugs and chemicals:—

### Imports.

	Nov., 1882	Nov., 1884	Nov., 1885
Quicksilver .. ..	30,800	60,000	35,554
Alkali .. ..	2,140	4,480	3,634
.. ..	5,765	7,834	4,643
.. ..	7,957	8,165	3,827
Chemicals (unenumerated) ..	103,612	114,312	112,850
Dyes (coal-tar)—			
Aniline .. ..	32,261	21,795	18,033
Alizarine .. ..		18,056	29,154
Other coal-tar dyes .. ..		376	—
Oil—			
Cocoanut .. ..	35,645	38,878	8,808
" .. ..	56,595	62,435	12,513
Olive .. ..	2,180	769	1,461
" .. ..	84,824	32,824	58,950
Palm .. ..	63,378	72,211	84,212
" .. ..	118,290	110,926	93,452
Petroleum .. ..	8,724,519	4,781,374	7,442,816
Seed, of all kinds .. ..	267,513	140,060	229,232
" .. ..	1,085	1,370	1,562
" .. ..	38,710	41,448	43,261
Train, blubber, and sperm ..	1,614	1,918	1,501
" .. ..	64,171	55,860	41,927
Turpentine .. ..	40,192	27,834	30,444
" .. ..	58,434	32,083	40,460
Bark, Peruvian .. ..	7,458	8,487	12,800
Gum—			
Arabic .. ..	84,740	57,171	91,340
" .. ..	6,227	4,256	9,139
" .. ..	13,907	14,229	33,027
Drugs, unenumerated .. ..	88,220	49,083	71,311

### Exports.

	Nov., 1883	Nov., 1884	Nov., 1885
Alkali .. ..	621,622	525,661	579,160
" .. ..	198,368	168,801	168,839
Bleaching materials .. ..	155,800	159,835	127,071
" .. ..	59,640	61,013	41,829
Medicines, including drugs ..	79,524	72,808	78,343
Bark, Peruvian .. ..	8,133	10,027	10,102
" .. ..	53,684	48,185	62,226
Foreign chemicals .. ..	15,471	14,447	17,836
Gum—			
Arabic .. ..	9,029	3,414	4,325
" .. ..	23,016	12,136	18,497
Quicksilver .. ..	455,235	325,084	145,696
" .. ..	32,198	24,100	11,405

MINING LANE, December 12

BUSINESS has been considerably interfered with by the elections since the date of our last report—in fact, for more than a week little else was talked about, and the evenness of the struggle tended to considerably increase the excitement as results favourable first to one party and then to the other were wired through on the special tape at the London Commercial Sale Rooms, outside which place during the day of



the City election a large crowd congregated, and towards evening became so "playful," in the way of throwing bags of flour, pepper, &c., about, that by five o'clock the thoroughfare became completely blocked, and the assistance of several extra police was required before "the Lane" resumed its usual quietude.

The continued unsettled state of Eastern affairs is still cramping our export trade, which is again seriously deficient in point of value on the past month's Board of Trade returns, and those for the eleven months, January to November, also show a very considerable deficit as compared with corresponding months of last year.

Guided, however, by the absence of failures of any note and other facts, we believe the closing year has been a more profitable one to many in the Mincing Lane trades than its predecessor, and it is, moreover, to be expected that the improving trade in the United States will be promptly reflected here.

Bank rate remains at 3 per cent.

The drug sales held last Thursday went off quietly, being so near the end of the year. The only lively incident was the quinine transaction, as reported elsewhere.

So few changes having taken place during the month, and the year being practically at an end, we shall consider the year's movements of some articles where we think it likely to be of interest to our friends. One feature of the closing year is the remarkable and steady decline in value of most chemicals, and particularly is this noticeable in arsenic, bleaching powder, borax, saltpetre, sodas, and sulphate of copper.

ACIDS are unchanged, but the position of citric is a somewhat firm one, and higher rates may follow if the shippers of juice in Sicily can maintain their present ideas. It is worthy of note that whereas *Citric* has improved through the year from 1s. 4 $\frac{1}{2}$ d. to 1s. 7 $\frac{1}{2}$ d. per lb., touching in July 1s. 8d., *Tartaric* has gradually declined from 1s. 8d. per lb. in January to 1s. 7 $\frac{1}{2}$ d. per lb., present price.

ALOE.—Cape have had a very even time of it, varying very little in price throughout the year. Socotrine of fine quality have been always scarce.

AMMONIA.—Sulphate grey, 24 per cent., is now only in moderate demand at 10 $\frac{1}{2}$  to 10 $\frac{1}{2}$  5s. per ton.

ANTIMONY.—Crude, which began the year at 22 $\frac{1}{2}$  per ton, has, through continued large arrivals, gradually given way to present price of 19 $\frac{1}{2}$ , and even less for large lines. 245 bags Borneo regulus sold in public sale at low price of 28 $\frac{1}{2}$  per ton.

ARSENIC, at 1s. 6 $\frac{1}{2}$ d. per cent. less than in January, meets with only limited trade.

BALSAMS throughout the year have been depressed, particularly so balsam Peru.

BARK has become flat, and values are considerably less than a month since. The large sales held November 17 went off very quietly, and being followed by advices of unusually heavy shipments from Ceylon immediately upon the opening of the new season there, has thrown the market here into a very depressed condition. The large public sales of quinine have also had their effect upon the bark market, and completed a very disorganised state of affairs. Referring to our remarks last month about the size of the present bale of Ceylon bark, we are glad to learn that a circular has been signed by the principal buyers advocating that no bale of bark should weigh more than 250 lbs. net.

BLEACHING-POWDER has experienced a very quiet year's trade, commencing at 8 $\frac{1}{2}$  per ton and gradually receding to present price of 7 $\frac{1}{2}$  5s. per ton, with the exception of a slight reaction in June, when the cholera abroad caused firmness in this and kindred articles at home.

BORAX, which began the year at 40s. to 42s. per cwt., has declined steadily to present values of 32s. to 35s. per cwt.

CALUMBA-ROOT.—Fine quality has been very scarce throughout the year, while inferior has been in plentiful supply, selling at very low rates. At the present moment large arrivals of all qualities are coming in.

CAMPHOR.—The prices of raw, which began the year at 56s. to 57s. per cwt., were by the united action of holders driven up at the end of June to 85s., since falling back to 70s. to 71s. per cwt. During the last few days sellers have been

asking 75s., and prices of refined qualities have been strengthened in consequence.

CAMOMILES have had a very quiet season, with less than ordinary demand.

CANTHARIDES.—Russian flies, which in January were worth 7s., declined to 5s. 6d. per lb. in July, but since then, through continued scarcity, prices have become considerably higher, and extreme rates of about 10s. are now demanded.

CASSIA LIGNEA has had a somewhat eventful year. Commencing at 27s. 6d. per cwt., prices gradually declined, until in July 25s. 6d. was touched, when a sharp speculative business set in, driving prices suddenly up to 31s., from which it has since declined, with occasional reactions, to present value of 29s. per cwt.

CLOVES have met with fair business throughout the year. Zanzibars, worth in January 5 $\frac{1}{2}$ d. per lb., rose in March to 6 $\frac{3}{4}$ d., falling to 4 $\frac{3}{4}$ d. in September, and closing now at 5 $\frac{1}{2}$ d. per lb.

COCA LEAVES.—Fifty-three packages were offered in last drug sales, but held for higher rates in consequence of stock having become reduced.

COCAINE has given way considerably in value from the fancy prices formerly demanded.

COCHINEAL.—The demand has steadily continued to improve throughout the year, and the position remains a firm one.

CODEINA is still in good demand, notwithstanding which makers accept easier rates.

COD - LIVER OIL.—The position has been further strengthened by the present severe weather. In Thursday's sales 56 casks were bought in at higher rates.

CREAM OF TARTAR has been in restricted demand through the year at values varying between 129s. and 126s. per cwt., the lower being the present price.

CUBEBS are now held for extreme rates, from which holders show no disposition to give way.

ERGOT OF RYE, which in January and February failed to attract buyers, even at very low figures, has since, through failure of supplies, gradually become much sought after both here and in America.

ESSENCES, which began the year in a very depressed condition, have improved in value owing to the smallness of this year's crops of fruit in Italy. Bergamotte and lemon are both dearer, and shippers show more firmness now than usual.

GUM ARABIC has been in a strong position throughout the year, the firmness being greatly due to the war in the Soudan having considerably checked fresh supplies from arriving on this market.

GLYCERINE has ruled at low prices, but firmness is now shown on the part of makers, which may lead to improved rates before long.

HONEY of all descriptions has been in plentiful supply at very low prices throughout the year, the New Zealand production being often very fine.

IPECACUANHA through smallness of stocks, has ruled at improving values up to present prices of 3s. to 4s. 6d. per lb. according to quality.

ISINGLASS.—In sales held 24th inst., 261 packages East India were offered, of which 132 packages sold at about late rates, although some Bombay sorts showed a trifling decline from last sale's values.

LEMON-JUICE continues in a firm position, shippers asking 22 $\frac{1}{2}$  per pipe f.o.b. Messina for forward delivery, while English buyers make bids of a little less. Shipments to England during the past three months having been very small, and the spring demand coming on, shippers refuse to accept less than their quotations, expecting that English buyers will be forced ere long to pay their price.

LIME-JUICE has varied much in price during the year, and in May good Jamaica quality, being very scarce, reached 3s. per gallon.

MENTHOL continues steady at 28s. to 30s. per lb., having fallen about 10s. per lb. from January prices.



**OILS.**—Aniseed remains at 6s. 10d. to 7s. per lb. H. G. Hotchkiss' American peppermint oil has varied during the year between 15s. and 19s. per lb., continually changing in accordance with holders' views. At the moment American reports give a firm tone to the price of 18s. 6d., notwithstanding which, however, some offered in last drug sales was bought in at 18s. per lb.

**OPIMUM** has been in better demand, with slight improvement in prices of best shipping sorts lately, but closes quieter.

**OTTO OF ROSES.**—Owing to the continued disturbed state of the producing districts, shippers are maintaining a very reserved position, available stocks having become much reduced.

**PETROLEUM OIL** remains unchanged for spot at 7½d. to 7¾d. per gallon, but is easier for January-March at 6 7-16d. to 6½d. per gallon.

**PIMENTO** has very much improved in position during the year, notwithstanding that the large stock of 35,486 bags is considerable more than a year since, when the total was 21,769 bags. The improvement has been brought about by the confirmed shortness of the last crop.

**POTASH. CHLORATE** may be said to have had a good year. Standing at 6d. per lb. from January to May, it then showed signs of marked improvement, and steadily increased in value up to 8d., from which it has lately declined to 7½d. per lb.

**POTASSIUM. IODIDE** meets with only limited demand, and makers show more inclination to meet buyers at 10s. 9d. to 11s. per lb.

**QUICKSILVER.**—Importers have advanced their price by stages to 6l. 5s. per bottle, but the demand is poor, and in second hands it is readily obtainable at 6l. 2s. 6d. per bottle.

**QUININE** has become very depressed and neglected. With prices already waning, the sudden announcement of a large public sale of 15,000 oz. German "without reserve," followed immediately by another of 8,000 oz. Whiffen's, and 7,000 oz. Pelletier's, also "without reserve," and all for sale on the 3rd inst., had a very weakening effect upon an already weak market. The German makes, which were in tins, sold at 2s. 7d. to 2s. 11d. per oz., Whiffen's (also tins) at 2s. 11d. per oz., and Pelletier's, in 1-oz. bottles, at 3s. 2d. per oz. The day following the sale Howards dropped their price (which had previously stood at 3s. 9d.) to 3s. 6d. for 1-oz. bottles; and then another sale was announced, again "without reserve," this time consisting of 12,000 oz. German tins, 5,000 oz. Whiffen's tins, and 800 oz. Howards' 1-oz. bottles, and this sale took place in the ordinary drug sales, held the 10th inst., when the German made 2s. 9d. and 2s. 10d. per oz., Whiffen's 2s. 9d. and 2s. 10d. per oz., and the Howards' 3s. 2d. and 3s. 3d. per oz. These events will make our remarks upon the article last month the better understood, and, considering also the present large arrivals of bark, we fail to see where any improvement in prices of quinine can be looked for for some time to come. The above prices are just 1s. 6d. per oz. less all round than January's quotations.

**SAFFRON** continues to maintain the full advance, and finest new crop Valencia is now quoted 44s. to 46s. per lb., and fine 41s. to 42s. per lb. These figures are, however, checking business, the rise being a very considerable one.

**SALTETRE** has experienced a very quiet year's trade, present prices of 22s. 6d. per cwt. for kegs being 6d. under January's figures.

**SENNA.**—Tinnivelly fully maintains the late improvement.

**SODA.**—Crystals have been much depressed throughout the year at values ranging from 2l. 13s. to 2l. 18s. per ton ex ship here, the lowest being present value.

**SOY** remains without demand at 1s. 5d. per gallon.

**SULPHATE OF COPPER**, which began the year at 18l. per ton, has, through competition of manufacturers and decline in the value of copper, gradually given way to present price of 14l. 15s. per ton, although a short improvement was noticed during the recent temporary advance in the metal.

**TURPENTINE.**—American spirit maintains improved price of 27s. per cwt. for spot.

**VANILLOES** have declined considerably in value upon the year, present prices being very low. Of 202 tins offered last Thursday, 79 sold, good sound beans at 11s. to 16s. 6d. per lb., mouldy at considerably less.

WE have received the following circular, signed by some of the principal buyers, with reference to the condition in which shipments of East India bark now frequently arrive in London:—

London, December 9.

SIR,—At the last public auctions dissatisfaction was expressed by the London bark buyers, because bales of bark often arrive at their final destination in bad condition, heavy loss in weight frequently having to be borne by the manufacturers.

In order to remedy this it is necessary, firstly, as regards shippers (a) that no bale of bark should weigh over 250 lbs. net; (b) that stout gunny cloth, not thin Hessian canvas, should be used for packing.

The large and unwieldy bales, so often shipped from Ceylon, are in dock more or less unmanageable; to draw fair samples from such packages is most difficult, and the wear and tear is naturally excessive.

The thin Hessian canvas so often used by shippers gives way directly the goods are handled, and is often the direct cause of loss to the buyers.

Secondly, as regards docks and wharves (a) it is a *sine qua non* that samples should be absolutely unimpeachable; (b) it is necessary that iron hoops, removed to facilitate sampling, or for the purpose of taring, be re-adjusted or replaced by stout cording.

It is invidious to mention names, but two wharves undoubtedly deliver barks in a better condition for re-shipment than their competitors.

The rates which importers pay to docks and wharves justify the trade in demanding that the work be done thoroughly, and that barks be delivered to the buyers with every iron hoop adjusted or re-adjusted, or with a stout cord in lieu of any missing hoop.

Kindly treat this matter as of importance, and we rely upon you to put this letter forward in the proper quarters.

We are, dear sirs, yours faithfully,

(Signed)—

p.p. H. BUCHLER,

P. Buchler,

W. H. COLE & Co.,

CORBYN, STACEY & Co.,

FRANCOIS LE MAIR &

RIVERS HICKS,

HOWARDS & SONS,

C. G. MEIER & Co.,

J. C. ROHRWEGER,

FRED. THOMAE & Co.,

THOS. WHIFFEN,

WIDENMANN BROCHER & Co.

(FROM OUR AMERICAN CORRESPONDENT.)

NEW YORK, December 2.

As the end of the year approaches the markets everywhere rule quieter, and the drug market here is no exception to the rule. As there is very little speculative interest at work the changes to be noted are the legitimate outcome of supply and demand. In the home trade the flow of orders is fair in the aggregate, but the indifference of buyers to quantities in excess of such as can readily be distributed gives to the market an appearance of inactivity. For export the demand has been above the average for the season of the year.

The prices in parentheses in sterling are what the different articles would cost delivered in London, all market allowances, discounts, &c., being taken into account. Importers can, therefore, see at a glance the course of this market compared with their own.

**BALSAMS.**—Heavy arrivals of *Copaiba* continue to come to hand, in all, for November, 75 tons, including 17 barrels *rié* Havre. The demand for export being fair, the market, although very low as to price, is not depressed. Carthage is quoted 29c. (1s. 3½d.); Para, 32c. (1s. 5½d.); Maracaibo, 30c. (1s. 4½d.); and prime Maranham, 33c. (1s. 6d.). *Tolu* is lower, owing to the unexpected arrival of about 7 tons;



sales have taken place from first hands at 32c. (1s. 5½d.). *Canada* is still neglected, at 32c. (1s. 5½d.) in barrels; a variety from Oregon can be bought for 25c. (1s. 2d.) in quantity.

**COCA LEAVES** are rapidly declining, in spite of the large demand for cocaine-making. Prime dark-green Peruvian leaves are offering at 45c. (2s. 1½d.); common brown, 35c. (1s. 6½d.); while light-green Bolivian leaves can be had for 50c. (2s. 3d.); during the past month 20,000 lbs. arrived, while 50,000 lbs. are reported on the way. *Cocaine* has declined to 60c. (2s. 7½d.) per gramme. This article is protected by a duty of 25 per cent., so that the quotation really is 1s. 11d. when compared with prices in Europe.

**BEESEWAX** meets with considerable attention. The quality of American commends itself to English buyers. The market is very firm at 26½c. (6l. 10s.).

**SPERMACETI.**—This article presents the extraordinary appearance of having advanced from 23c. per lb. this time last year to 39c. (1s. 9d.) to-day, at which sales have taken place. Formerly the stock used to be from 1,800 to 2,000 cases, now there is none in stock, and all the makers are sold up to February next. Extreme prices have not checked the demand, which is largely excess of production, 500 cases being shipped to all parts during November, and at least 1,000 cases would be required to fill orders in the market. By cable, dated December 12, our correspondent informs us that the price of spermaceti has since advanced to 45 cents per lb.

**BROMINE.**—The combination of producers have again advanced their price 10 per cent., and, consequently, all bromine salts are dearer in proportion. Bromide potassium is in large demand at 36c. (1s. 6¾d., 5 per cent.). Whether this large advance will check the export demand remains to be seen. The combination at this side may compel the bromine makers in Germany to join them; the large shipments of bromine made lately from Baltimore may be with this object, and, consequently, this article may rule cheaper in Europe than here.

**OIL PEPPERMINT.**—The position of the market is very strong, chiefly owing to the small supplies of oil left in the hands of the growers, for the demand cannot be said to be large, most of the large consumers evidently holding back for further developments. Appearances most certainly do not warrant any reduction in price, but, on the contrary, point to gradually increasing rates till the near approach of next year's crop again sends the market down. H. G. Hotchkiss brand has been selling at \$4.10 (18s. 9d.) for export; but it is getting scarce, owing to the proprietor finding great difficulty in getting oil to bottle. The most curious fact connected with this uncertain article is the great dearth of bulk oil in tins. Dealers who usually got through 10,000 to 15,000 lbs. in the course of a year either report that they can only offer as they buy, or state that their stocks are not half than what they carried in former years. The price of prime Wayne County oil in tins is \$3.80 (16s. net), and only limited quantity offering.

**ESSENTIAL OILS.**—*Wintergreen* is now very scarce, and brings \$2.10 (9s.); it will probably be dearer. *Sassafras* is in large demand at 43c. (1s. 10½d.) in export packages. *Cassia* has met with demand from London at 77½c. (3s. 6d.), and *Aniseed* at \$1.68 (7s. 8d.); the stocks of these Chinese oils are heavy here at present, especially of cassia, which is much larger than the London stock.

**QUININE.**—Although the official price of the American manufacturers remains unchanged—vials, 95c. (4s. 2d., 5 per cent.)—the open market kept declining all through the month, and has now reached 72c. (3s. 2d., 5 per cent.) for prime German brands in bulk; offers at this figure are not from manufacturers' agents but from second-hand holders, who appear most anxious to sell and cannot find buyers, as the season of consumption is over. It is thought that the American makers will reduce their quotations before long. We learn by cablegram from New York, dated December 12, that the latest price quoted for American quinine was 78 cents.

**ROOTS.**—*Jalap* is rather scarce here, owing to cessation of arrivals; at present our market is higher than London and Hamburg. *Senega* is without alteration, the inquiry is light.

Prime Western roots are quoted 45c. (2s. 1d.); extra choice bright, 48c. (2s. 2½d.); whilst coarse, chumpy, dark roots are in good supply at 43c. (2s.). *Serpentaria* is still very scarce, the combination in Texas holding firm; small shipments are being made from outside hands at 37c. to 40c. (1s. 8d. to 1s. 10d.), and if these will be sufficient to keep the demand in check for another month or two it is thought the large supply of 20,000 lbs. held back may be thrown on the market. *Golden Seal* is dearer, being quoted 15c. (8d.). *Pink* is also higher, at 32c. (1s. 4½d.). *Sarsaparilla*.—Vera Cruz is in short supply at the moment, but 150 bales are reported on the way, for which 11c. (58s. cwt.) is asked. Honduras is in large supply, the stock being augmented to 900 bales by the arrival of the brig *Carib* with 430 bales of first-class brands; the market, however, is firm at the moment, but such a large stock must end in the holders giving way. Crown M.C. is quoted 34c. (1s. 9d.); while prime starchy, hide-bound brands can be had at 27c. (1s. 5d.).

The following is the record of Stocks in the Port of London on November 30 of the following years respectively:—

	1885	1884		1885	1884
Aloes .....cs	4,572	3,779	Gum (cont.)—		
" .....kegs	24	33	Benjamin ..pkgs	1,568	1,426
" .....gourds	152	349	Damar ....	3,621	3,548
Aniseed, Star chts	285	211	Galbanum ..	15	27
Arrowroot ....cks	11,855	10,987	Gamboge ..	116	175
" bxs & tins	3,370	5,909	Guaiaicum ..	35	99
Balsam.....cks, &c.	451	552	Kino .....	160	161
Bark, Medicinal			Kowrie .....tms	2,104	743
cks & cs	3,281	4,330	Mastic .....pkgs	117	254
srns, &c.	57,540	81,479	Myrrh, E.I.	294	97
Borax.....pkgs	743	539	Olibanum ..	5,198	5,904
Bees' wax ..bls & srns	1,172	957	Sandarac ..	1,204	947
" cks & cs	1,288	674	Tragacanth ..	1,095	1,407
cakes	6	7	Indigo, E.I. ....chts	8,965	13,245
Wax, Jap. vtgbl. pk	1,200	1,499	Spanish ....srns	1,329	2,463
Camphor ....pkgs	6,716	8,699	Ipecac.....cks & bgs	114	154
Cardamoms ..chts	793	517	Jalap .....bls	200	325
Cochineal, srns, &c.	7,668	9,161	Nux Vomica pkgs	745	641
Coccol. Ind. bgs, &c.	358	457	Oil—		
Colombo root pkgs	973	1,723	Castor .....cks	523	476
Cream tartar ..cks	91	52	" .....cs	6,881	7,962
Cubebs .....bgs	152	146	Palm .....tms	241	57
Dragonsblood chts	141	139	Cocconut ..tms	1,681	2,481
Galls, China & Jap.			Olive .....cks, &c.	743	514
cs	4,037	2,131	Aniseed .....cs	202	392
E.I. ....bgs	—	—	Cassia .....cs	87	186
Trky & Prsn sks	3,518	3,241	Opium .....chts, &c.	2,119	2,244
			Rhubarb.....chts	1,911	1,030
			Saltptre, Nit. Pot.		
Gum—			tms	3,149	3,708
Ammoniac pkgs	178	232	Nitrate Soda	5,333	2,266
Animi & Copal			Sarsaparilla ....bls	416	455
pkgs	7,115	7,845	Senna ....bls, &c.	897	2,545
Arabic, all descriptions pkgs	9,023	5,911	Siellac, total chts	58,365	44,953
Asafetida.. "	963	657	Ti rmeric ....tms	765	840
			Vermilion....chts	—	5

A "DAGONET" STORY.—Dagonet, in the *Referee*, is responsible for the following:—"Apropos of doctors, here is a true story. The other day I met a poor fellow and his wife who had been supers at the Adelphi, but who had been compelled to give up owing to ill-health. They were both elegantly dressed, and I expressed my surprise, as I had heard they were in needy circumstances. I congratulated them on the evident gain of wealth which had compensated the loss of health. 'Oh, sir,' said the man, 'these are not our own clothes; they are lent to us by Dr. —.' 'Lent to you by Dr. —!' I exclaimed; 'whatever for?' 'Why you see, sir, we are supering for him, and he finds the dresses.' 'Does he run a theatre, then?' I asked. 'Lor' no, sir!' was the reply; 'me and my wife, and some of the most respectable-looking of the out-patients at — Hospital, has a shilling to go and sit in his receiving-room for two hours a day. We're what they call dummy patients.' I 'tumbled' in a moment. The doctor was young, and anxious to have a reputation for a wide practice. Patients calling found his rooms crowded, and gathered from the fact that he had a widespread reputation. The idea is excellent. I want a dozen supers at once to dress up as editors, and come and clamour on my doorstep for copy. Only persons with a thoroughly editorial appearance need apply."



## Monthly Price Current.

The prices quoted in the following list are those actually obtained in Mining Lane for articles sold in bulk. Our Retail Subscribers must not expect to purchase at these market prices, but they may draw from them useful conclusions respecting the prices at which articles are offered by the Wholesale Firms.

## CHEMICALS.

## ACIDS—

		Last Month	This Month
		s. d. s. d.	s. d. s. d.
Acetic	per lb.	0 2½ to 0 0	0 2½ to 0 0
pure	"	0 5 .. 0 9	0 5 .. 0 9
glacial	"	0 6 .. 1 0	0 6 .. 1 0
Benzoe Sublimate	"	0 0 .. 3 6	0 0 .. 3 6
Ex Gum	per oz.	0 6½ .. 0 0	0 6½ .. 0 0
Citric	"	1 7 .. 1 7	1 7 .. 1 7½
Gallic	"	3 2 .. 3 6	3 2 .. 3 6
Hydrochloric	per cwt.	4 6 .. 7 6	4 6 .. 7 6
Nitric	per lb.	0 3 .. 0 3½	0 3 .. 0 3½
Oxalic	"	0 4 .. 0 0	0 4 .. 0 0
Sulphuric	"	0 0½ .. 0 1	0 0½ .. 0 1
Salicylic	"	6 9 .. 9 6	6 9 .. 9 6
Tannic	"	1 4 .. 2 9	1 4 .. 2 9
Tartaric, English	"	1 7½ .. 0 0	1 7½ .. 0 0
foreign	"	1 6½ .. 0 0	1 6½ .. 0 0
ANTIMONY, crude	per cwt.	20 0 .. 0 0	19 0 .. 0 0
star	"	34 0 .. 35 0	34 0 .. 35 0
ARSENIC, lump	"	21 0 .. 22 0	21 0 .. 22 0
powder	"	11 0 .. 0 0	10 9 .. 0 0
BRIMSTONE, rough	"	8 0 .. 8 6	8 0 .. 8 6
roll	"	8 9 .. 9 9	8 9 .. 9 9
flour	"	10 0 .. 12 6	10 0 .. 12 6

## GLYCERINE, German

refined	"	46 0 .. 50 0	46 0 .. 50 0
crude brown	"	37 6 .. 42 6	37 6 .. 42 6
iodoform	per lb.	17 0 .. 0 0	17 0 .. 0 0
iodine, dry	per oz.	0 8½ .. 0 9	0 8½ .. 0 9
resublimed	"	1 0 .. 0 11½	1 0 .. 0 11½
MAGNESIA, calcined	per lb.	0 10 .. 1 4	0 10 .. 1 4
Hwds.	"	5 0 .. 0 0	5 0 .. 0 0
MERCURY	per bot.	116 3 .. 0 0	122 6 .. 125 0
PRECIPITATE, red	per lb.	2 11 .. 0 0	2 11 .. 0 0
white	"	2 9 .. 0 0	2 9 .. 0 0
PRUSSIAN BLUE	"	1 8 .. 2 0	1 8 .. 2 0
SANTONINE	"	11 6 .. 0 0	11 6 .. 0 0
SALICINE	"	10 0 .. 0 0	10 0 .. 0 0
THYMOL	"	35 0 .. 0 0	35 0 .. 0 0

## SALTS—

Alum	per ton	115 0 .. 0 0	115 0 .. 0 0
powder	"	125 0 .. 0 0	125 0 .. 0 0
Ammonia:			
Carbonate	per lb.	0 5 .. 0 0	0 5 .. 0 0
Hydrochlorate,			
crude, white	per ton	560 0 .. 640 0	560 0 .. 640 0
Sulphate	"	230 0 .. 240 0	230 0 .. 240 0
Argol, Cape	per cwt.	83 0 .. 96 0	83 0 .. 96 0
Red	"	70 0 .. 90 0	70 0 .. 90 0
Oporto, red	"	38 0 .. 42 0	38 0 .. 42 0
Bleaching powder	"	7 3 .. 7 6	7 3 .. 7 6
Borax, British refined	"	32 6 .. 35 0	30 0 .. 32 6
Calomel	per lb.	2 6 .. 0 0	2 6 .. 0 0
Chloral hydrate	"	4 5 .. 4 7	4 5 .. 4 7
Liebreich's	"	5 6 .. 6 0	5 6 .. 6 0
Copper:			
Sulphate	per cwt.	14 9 .. 15 0	14 9 .. 15 0
Copperas, green	per ton	45 0 .. 55 0	45 0 .. 55 0
Corrosive Sublimate	per lb.	2 0 .. 0 0	2 0 .. 0 0
Cream Tartar, French	per cwt.	128 6 .. 127 0	128 0 .. 126 6
brown	"	109 0 .. 0 0	109 0 .. 0 0
Epsom Salts	"	3 6 .. 4 0	3 6 .. 4 0
Glauber Salts	"	3 6 .. 5 0	3 6 .. 5 0
Magnesia: Carbonate	"	40 0 .. 0 0	40 0 .. 0 0
Pond, Hwds.	"	72 0 .. 0 0	72 0 .. 0 0
Morphie Murias	"	4 6 .. 5 0	4 6 .. 5 0
Phosphorus	per lb.	2 3 .. 2 4	2 3 .. 2 4
Potash:			
Bichromate	"	0 3½ .. 0 0	0 3½ .. 0 0
Carbonate:			
Potashes, Canada,			
1st sort	per cwt.	29 0 .. 0 0	29 0 .. 0 0
Pearlashes, Canada,			
1st sort	"	46 0 .. 46 6	46 0 .. 46 6
Chlorate	per lb.	0 7½ .. 0 0	0 7½ .. 0 0
Prussiate	"	0 9½ .. 0 10	0 9½ .. 0 10
red	"	1 11 .. 2 0	1 11 .. 2 0
Sulphate	per cwt.	10 6 .. 11 6	10 6 .. 11 6
Potassium:			
Bromide	per lb.	1 5½ .. 1 7	1 5½ .. 1 7
Chloride	per cwt.	9 0 .. 0 0	9 0 .. 0 0
Iodide	per lb.	11 0 .. 11 6	11 0 .. 11 6
Quinine:			
Sulphate, British, in			
bottles	per oz.	4 0 .. 0 0	3 6 .. 0 0
Sulphate, French	"	3 10 .. 0 0	3 3 .. 0 0
Sulphate, German	"	3 5 .. 3 8	3 0 .. 0 0
Sal Acetos	per lb.	0 8 .. 0 8½	0 8 .. 0 8½
Sal Ammoniac, British	per cwt.	36 0 .. 38 0	35 0 .. 38 0
Saltpetre:			
Bengal, 6 per cent. or			
under	"	16 3 .. 0 0	16 3 .. 0 0

## Saltpetre:—(cont.)

Bengal, over 6 per				Last Month	This Month
cent.	per cwt.	s. d. s. d.	s. d. s. d.	s. d. s. d.	s. d. s. d.
British, refined	"	0 0 to 0 0	0 0 to 0 0	0 0 to 0 0	0 0 to 0 0
Soda: Bicarbonate	"	21 6 .. 22 6	21 6 .. 22 6	21 6 .. 22 6	21 6 .. 22 6
Hwds.	"	7 9 .. 0 0	7 9 .. 0 0	7 9 .. 0 0	7 9 .. 0 0
Carbonate:					
Soda Ash	per deg.	0 13 .. 0 0	0 13 .. 0 0	0 13 .. 0 0	0 13 .. 0 0
Soda Crystals	per cwt.	2 8 .. 0 0	2 7 .. 0 0	2 7 .. 0 0	2 7 .. 0 0
Caustic	"	8 9 .. 9 0	8 9 .. 9 0	8 9 .. 9 0	8 9 .. 9 0
Hyposulphite	"	8 0 .. 8 6	8 0 .. 8 6	8 0 .. 8 6	8 0 .. 8 6
Nitrate	"	10 3 .. 10 9	10 3 .. 10 9	10 3 .. 10 9	10 3 .. 10 9
Zinc Sulphate	"	12 0 .. 14 0	12 0 .. 14 0	12 0 .. 14 0	12 0 .. 14 0
SUGAR OF LEAD, White	"	30 0 .. 34 0	30 0 .. 34 0	30 0 .. 34 0	30 0 .. 34 0
Brown	"	26 6 .. 0 0	26 6 .. 0 0	26 6 .. 0 0	26 6 .. 0 0
VERDIGRIS	per lb.	0 9 .. 0 10½	0 9 .. 0 10½	0 9 .. 0 10½	0 9 .. 0 10½
VERMILION, English	"	2 0 .. 0 0	2 0 .. 0 0	2 0 .. 0 0	2 0 .. 0 0
China	"	2 2 .. 0 0	2 2 .. 0 0	2 2 .. 0 0	2 2 .. 0 0

## DRUGS.

ALOES, Hepatio.	per cwt.	60 0 .. 140 0	60 0 .. 140 0
Socotrine	"	80 0 .. 160 0	80 0 .. 160 0
Cape, good	"	27 6 .. 35 6	27 6 .. 35 6
Inferior	"	25 0 .. 30 0	25 0 .. 30 0
Barbados	"	40 0 .. 120 0	40 0 .. 120 0
Curacao	"	30 0 .. 80 0	30 0 .. 80 0
AMBERGRIS, grey	per oz.	75 0 .. 90 0	75 0 .. 90 0
BALSAM—			
Canada	per lb.	1 3 .. 1 6	1 3 .. 1 6
Capivi	"	1 6 .. 1 7	1 6 .. 1 7
Peru	"	6 6 .. 7 0	6 6 .. 7 0
Tolu	"	1 5 .. 1 6	1 5 .. 1 6
BARKS—			
Canella alba	per cwt.	27 6 .. 30 0	27 6 .. 30 0
Cascarilla	"	28 0 .. 35 0	28 0 .. 35 0
CINCHONA—			
Peru, grey	per lb.	0 6 .. 1 6	0 6 .. 1 6
Calisaya, all kinds	"	0 6 .. 1 8	0 4 .. 2 9
Ledgeriana	"	1 0 .. 4 0	0 5 .. 4 0
Carthagenia	"	0 3 .. 1 2	0 3 .. 1 2
Columbian	"	0 6 .. 1 2	0 6 .. 1 2
Cuprea	"	0 3 .. 1 3	0 3 .. 1 3
New Granada	"	0 6 .. 1 10	0 6 .. 1 10
Pitayo & Maracaibo	"	0 6 .. 1 1	0 6 .. 1 1
Red	"	1 6 .. 6 0	1 6 .. 6 0
East India, crown	"	0 4 .. 2 8	0 4 .. 2 4
red	"	0 4 .. 3 4	0 4 .. 2 6
Coca leaves	"	0 7½ .. 0 10	0 7½ .. 0 10
BUCHU LEAVES	"	0 2 .. 1 0	0 2 .. 1 0
CAMPHOR, China	per cwt.	70 0 .. 72 6	71 0 .. 75 0
Japan	"	70 0 .. 72 6	71 0 .. 75 0
Refin. Eng.	per lb.	1 1 .. 0 0	1 1 .. 0 0
Tablets	"	1 1 .. 1 2	1 1 .. 1 2
CANTHARIDES, China	"	4 0 .. 4 6	4 0 .. 4 6
Russian	"	10 0 .. 0 0	10 0 .. 0 0
CAMOMILE FLOWERS	per cwt.	70 0 .. 71 0	70 0 .. 71 0
CASTOREUM	per lb.	24 0 .. 35 0	24 0 .. 35 0
CHIRETTA	"	0 4 .. 0 0	0 4 .. 0 0
DRAGON'S BLOOD, Ip.	per cwt.	70 0 .. 240 0	70 0 .. 240 0
ERGOT OF RYE	per lb.	0 8 .. 1 0	0 8 .. 1 0
FRUITS & SEEDS (see also Seeds and Spices)			
Anise, China Star	per cwt.	92 6 .. 95 0	92 6 .. 95 0
Russian	"	27 6 .. 33 0	27 6 .. 33 0
Beans, Tonquin	per lb.	2 0 .. 4 0	2 0 .. 4 0
Cardamoms, Malabar,			
good	"	3 6 .. 4 6	3 6 .. 4 6
inferior	"	1 9 .. 2 9	1 9 .. 2 9
Aleppy	"	2 0 .. 3 0	2 0 .. 3 0
Madras	"	1 6 .. 3 6	1 6 .. 3 6
Ceylon	"	2 0 .. 2 10	2 0 .. 2 10
Malabar sorts	"	1 0 .. 4 0	1 0 .. 4 0
Cocculus Indicus	per cwt.	11 0 .. 13 0	11 0 .. 13 0
Colocyth, apple	per lb.	0 10 .. 1 3	0 10 .. 1 3
Cubeb.	per cwt.	320 0 .. 340 0	320 0 .. 340 0
Cumin	"	30 0 .. 34 0	30 0 .. 34 0
Fenugreek	"	10 0 .. 12 0	10 0 .. 12 0
Juniper Berries	"	15 0 .. 17 6	15 0 .. 17 6
Nux Vomica	"	7 6 .. 10 0	7 6 .. 10 0
Tamarinds, E. India	"	6 0 .. 9 0	6 0 .. 9 0
W. India	"	9 0 .. 12 0	9 0 .. 12 0
Vanilla, large	per lb.	17 0 .. 20 0	17 0 .. 20 0
inferior	"	5 0 .. 12 0	5 0 .. 12 0
FLOWERS—Dalmatian	"	60 0 .. 90 0	60 0 .. 90 0
Caucasian	"	95 0 .. 0 0	95 0 .. 0 0
HONEY, Californian	per cwt.	24 0 .. 38 0	24 0 .. 38 0
Jamaica	"	25 0 .. 35 0	25 0 .. 35 0
IPERCACUANHA	per lb.	2 10 .. 4 0	2 10 .. 4 0
ISINGLASS, Brazil	"	2 0 .. 4 3	2 0 .. 4 3
Tongue sort	"	1 0 .. 5 0	1 0 .. 5 0
East India	"	1 0 .. 4 6	1 0 .. 4 6
West India	"	2 9 .. 3 10	2 9 .. 3 10
Russ. leaf	"	7 0 .. 10 0	7 0 .. 10 0
Simovia	"	2 2 .. 2 4	2 2 .. 2 4
JALAP, good	"	0 7 .. 0 9	0 7 .. 0 9
infer. and stems	"	0 6 .. 0 7	0 6 .. 0 7
LEMON JUICE, f.o.b.			
Messina	per pipe	460 0 .. 0 0	460 0 .. 0 0
LIME JUICE	per gall.	1 8 .. 0 0	1 8 .. 0 0
LIQUORICE, Spanish	per cwt.	55 0 .. 100 0	55 0 .. 100 0
Liquorice Root	"	12 0 .. 20 0	12 0 .. 20 0
MANNA, flaky	per lb.	4 6 .. 5 0	4 6 .. 5 0
Musk, Tonquin pod.	per oz.	75 0 .. 87 6	75 0 .. 87 6
Grain	"	50 0 .. 90 0	50 0 .. 90 0
Yunnan pod.	"	30 0 .. 40 0	30 0 .. 40 0
OILS (see also separate list)			
Almond, expressed	per lb.	1 3 .. 1	1 3 .. 1
Castor, 1st pale	"	0 4 .. 0	0 4 .. 0



		Last Month			This Month					Last Month			This Month		
		s.	d.	s.	s.	d.	s.			£	s.	£	s.	£	s.
<b>Oils:—(cont.)</b>								<b>Oils:—(cont.)</b>							
Castor, second	per lb.	0	34	0	34	0	34	SEAL, yellow to tinged..	per tun	23	0	24	10	23	0
Cod-liver	per gall.	3	6	5	0	3	6	brown	"	18	0	19	0	20	0
<b>Essential Oils:</b>								SPEARMINT	"	51	0	52	0	51	0
Almond	per lb.	25	0	0	0	25	0	COD	"	35	0	35	0	35	0
Anise-seed, star	"	6	10	7	0	6	9	WHALE, South Sea, pale	"	20	0	21	0	21	0
" German, &c.	"	8	0	13	0	8	0	yellow	"	17	0	18	0	19	0
Bergamot	"	5	0	5	6	5	0	brown	"	14	0	16	0	15	0
Cajepout	per bot.	3	3	0	0	3	3	Sardine	per ton	25	0	27	0	25	0
Caraway	per lb.	7	6	11	0	7	6	OLIVE, Seville	"	40	0	41	0	40	0
Cassia	"	3	7	3	8	3	7	Gioja	"	36	0	37	0	36	0
Cinnamon	per oz.	2	0	23	0	2	0	Levant	"	35	0	36	0	35	0
Cinnamon-leaf	"	0	23	0	0	0	23	Mogador	"	35	0	36	0	35	0
Citronelle	"	0	14	0	14	0	0	Spanish	"	40	0	40	0	40	0
Clove	per lb.	3	3	3	6	3	3	Sicily	"	38	0	0	0	38	0
Juniper	"	1	6	2	0	1	6	COCOANUT, Cochinchina	"	30	10	31	0	30	10
Lavender, Exotic	"	6	6	7	6	6	6	Ceylon	"	27	0	28	0	27	0
" Mitcham	"	40	0	50	0	40	0	Mauritius	"	28	5	0	0	28	5
Lemon	"	3	6	5	6	3	6	PALM, fine	"	29	0	0	0	29	0
Lemongrass	per oz.	0	1	0	13	0	1	LINSEED	"	22	7	6	22	7	6
Neroli	"	7	0	0	0	7	0	RAPESEED, English, pale	"	24	15	0	0	24	15
Nutmeg	"	0	8	0	0	0	8	brown	"	22	15	0	0	22	15
Orange	per lb.	8	0	10	0	8	0	COTTONSEED	"	20	0	21	0	19	0
Otto of Roses	per oz.	12	6	29	6	12	6	LARD	"	33	10	35	0	35	10
Patchouli	"	0	0	0	0	0	0	TALLOW	"	28	10	45	0	25	0
Peppermint: American	per lb.	12	0	12	0	12	0	TURPENTINE, American	per cwt.	26	6	26	9	26	6
(H. G. Hotchkiss)	"	17	9	18	0	18	6	PETROLEUM, refined	per gall.	0	7	0	7	0	7
English	"	28	0	35	0	28	0	Spirit	"	0	6	0	6	0	6
(Jakson)	"	37	0	45	0	37	0	<b>SEEDS.</b>							
Japan	"	11	0	14	6	11	0	CANARY	per qr.	44	0	62	0	44	0
Menthol crystals	"	25	0	30	0	25	0	CARAWAY, English	per cwt.	0	0	0	0	0	0
Rosmary	"	2	6	3	9	2	6	German, &c.	"	37	0	50	0	36	0
Sassafras	"	2	6	0	0	2	6	CORIANDER	per qr.	15	0	22	0	14	0
Spearmint	"	12	0	14	0	12	0	HEMP	"	38	0	0	0	38	0
Thyme	"	2	6	0	0	2	6	LINSEED, English	"	42	6	0	0	42	6
Mace, expressed	per oz.	0	2	0	0	0	2	Black Sea & Azof	"	40	0	0	0	40	0
OPIMUM, Turkey	per lb.	12	6	14	9	12	6	Calcutta	"	44	0	44	6	43	6
" inferior	"	10	0	12	0	10	0	Bombay	"	47	6	0	0	45	0
QUASSIA (bitter wood)	per ton	120	0	0	0	120	0	St. Petersburg	"	35	0	38	0	35	0
RHUBARB, China, good	per lb.	2	3	3	9	2	3	MUSTARD, brown	per bush.	10	0	12	0	10	0
and fine	"	1	3	2	0	1	3	white	"	7	6	9	6	7	6
Middling to fair	"	1	3	2	0	1	3	POPPY, East India	per qr.	36	0	0	0	36	0
ROOTS—Columba	per cwt.	25	0	60	0	25	0	<b>SPICES.</b>							
China	"	22	0	27	0	22	0	CASSIA LIGNEA	per cwt.	27	6	28	0	29	0
Cus-Cus	"	0	0	0	0	0	0	Vera	"	18	0	23	0	19	0
Galangal	"	15	0	18	0	15	0	Buds	"	41	0	41	6	42	0
Gentian	"	20	0	24	0	20	0	CINNAMON, Ceylon:							
Orris	"	25	0	40	0	25	0	1st quality	per lb.	0	8	1	10	0	8
Pellitory	"	68	0	80	0	68	0	2nd ditto	"	0	7	1	7	0	7
Pink	per lb.	2	0	3	0	2	0	3rd ditto	"	0	6	1	1	0	6
Rbatany	"	0	9	1	0	0	9	Tellicherry	"	0	0	0	0	0	0
Seneca	"	2	4	2	6	2	4	Chips	"	0	1	0	3	0	1
Snake	"	2	0	3	0	2	0	CLOVES, Penang	"	0	10	1	1	0	9
SAFFRON, Valencia	"	33	0	42	6	41	0	Amboyna	"	0	6	0	8	0	6
Alicant	"	25	0	30	0	27	0	Zanzibar	"	0	5	0	5	0	5
SARSAPARILLA, Lima	"	0	6	0	9	0	6	GINGER, Jam, fine	per cwt.	75	0	200	0	75	0
Guayaquil	"	1	2	1	5	1	2	Ord. to good	"	38	0	70	0	38	0
Honduras	"	1	7	2	0	1	7	African	"	30	0	35	0	30	0
Jamaica	"	1	7	2	0	1	7	Bengal	"	21	0	30	0	21	0
SASSAFRAS	per cwt.	0	0	0	0	0	0	Malabar	"	0	0	0	0	0	0
SCAMMONY, Virgin	per lb.	28	0	32	0	28	0	Cochin	"	34	0	105	0	34	0
second and ordinary	"	10	0	24	6	10	0	PEPPER, Black, Malabar	per lb.	0	7	0	8	0	7
SEENA, Bombay	"	0	24	0	0	0	24	Singapore	"	0	7	0	7	0	7
Thimblevelly	"	0	6	1	3	0	6	White	"	0	9	0	10	0	9
Alexandria	"	0	9	1	6	0	9	Cayenne	"	1	2	1	8	1	2
SPEARMINT, refined	"	1	3	0	0	1	3	MACE, 1st quality	"	1	4	2	0	1	4
American	"	0	10	0	0	0	10	2nd and inferior	"	1	1	1	2	1	1
SOILS								NUTMEGS, 78 to 60 to lb.	"	2	4	3	8	2	4
AMMONIAC, drop	per cwt.	2	5	2	10	2	5	90 80	"	2	3	2	5	2	3
ANIMI, fine washed	"	14	10	16	0	14	10	132 95	"	1	7	2	3	1	7
sorts	"	11	0	14	0	11	0	PIMENTA	"	0	2	0	3	0	2
ARABIC, pale picked	"	2	15	3	10	2	15	<b>VARIOUS PRODUCTS.</b>							
sorts, mid. to fine	"	1	10	2	6	1	10	COCHINEAL—							
TURKEY, pick. gd. to fin.	"	9	0	15	0	9	0	Honduras, black	per lb.	1	6	1	10	1	6
second & inferior	"	7	0	8	10	7	0	silver	"	1	3	1	6	1	4
sorts	"	6	0	7	5	6	0	Mexican, black	"	1	4	1	9	1	4
ASAFOETIDA, cm. to fin.	"	1	10	3	0	1	10	silver	"	1	3	1	5	1	4
BENJAMIN, Siam, 1st	"	5	0	10	0	5	0	Teneriffe, black	"	1	6	2	0	1	6
Sumatra	"	5	0	10	0	5	0	silver	"	1	3	1	5	1	4
COPAL, Manila	"	15	0	75	0	15	0	GALLS, Tky blue	"	48	0	55	0	48	0
Angola, red	"	145	0	152	6	145	0	China	"	45	0	48	6	45	0
DAMAR, pale	"	75	0	80	0	75	0	INDIGO, Bengal	"	1	9	6	7	1	9
EUPHORBUM	"	10	0	15	0	10	0	Madras	"	0	5	3	4	0	5
GALBANUM	per lb.	0	3	0	10	0	3	kupah	"	0	10	4	9	0	10
GAMBOGE, picked pipe	per cwt.	240	0	280	0	240	0	Orde	"	1	0	5	0	1	0
GUAIACUM	per lb.	0	6	2	1	0	6	Guatemala	"	1	3	5	8	1	3
KINO	per cwt.	40	0	55	0	40	0	ROBIN, American	per cwt.	3	9	10	0	3	9
KOWRIE, sorts	"	30	0	0	0	30	0	SOAP, Castile	"	28	0	0	0	28	0
selected	"	110	0	200	0	110	0	SOY, China	per gall.	1	5	0	0	1	5
MASTIC, picked	per lb.	2	9	3	3	2	9	WAX, Bees, English	per cwt.	40	0	40	0	40	0
MYRRH, good and fine	per cwt.	100	0	150	0	100	0	Jamaica	"	6	15	7	10	6	15
ordinary to fair	"	35	0	140	0	35	0	East India	"	6	0	7	12	6	0
OLIBANUM, p. drop	"	29	0	37	0	29	0	VEGETABLE, Japan	per lb.	43	15	44	0	43	15
amber and yellow	"	40	0	45	0	40	0	Paraffin	"	0	4	0	6	0	4
SENEGAL	"	60	0	105	0	60	0	WOOD, Dye, Bar	per ton	43	5	43	10	43	5
SANDARAC	"	64	0	85	0	64	0	Brazil	"	7	0	18	0	7	0
SHELLAC, Orange	"	58	0	63	0	58	0	Cam	"	16	0	20	0	16	0
LIVER	"	25	0	0	0	25	0	Fustic, Cuba	"	4	0	6	0	4	0
THUS	"	140	0	280	0	140	0	Jamaica	"	4	5	5	15	4	5
TRAGACANTH, leaf	"	20	0	180	0	20	0	Logwood, Campeachy	"	7	10	8	5	7	10
in sorts	"	20	0	180	0	20	0	Jamaica	"	5	0	5	10	5	0
OILS.								LIMA, first pile	"	8	5	8	10	8	5
SEAL pale	per tun	25	0	26	0	25	0	RED SANDARS	"	5/17/6	6	0	5/17/6	6	0





### British Chemists and Druggists' Trading Association (Limited).

We took care that the communications published in our last issue should come before all the directors of the Association. Subsequently four more communications reached us. "Victim" wrote that he had paid 4*l.*, wrote to the secretary, and had no reply; wrote to the solicitor, who said a new secretary was about to be appointed; wrote to two of the directors—one replied, the other did not; wrote to the bank, and was referred to the solicitor; wrote again to him, and had no reply. "Alpha" wrote to six of the directors, and had replies from three of them, which he forwarded for our inspection. From these it was evident that the gentlemen who so readily lent their names to the enterprise hardly realised the responsibility they had incurred. Our other correspondents, "F. J." and "Britisher," gave us reports of similar experience. We were much surprised, and would have published the letters in full, with some legal advice on the matter; but the following seems to render such publication unnecessary:—

SIR,—I am desired to state that at a board meeting held on the 26th ult. the following resolution was passed:—"That no allotment be made in view of the small amount of applications for shares, and that the money paid into the bank by the various applicants for shares be returned forthwith."

At another meeting, held on the 30th ult., this resolution was confirmed. Cheques for the respective amounts will be signed and forwarded in due course by those gentlemen who have lodged deposits with the London and Westminster Bank, Southwark Branch. Yours obediently,

32 Fenchurch St., E.C., Dec. 1.

WM. BARBER  
(Secretary).

### Cinchona Extracts.

[The two following letters were accidentally omitted from our November issue.]

*To the Chemist and Druggist—*

SIR,—We beg to acknowledge the favour of a notice of our ext. cinchona liq. in your journal of the present month.

The notice is in itself both accurate and gratifying; but we wish to observe that it scarcely does justice to our preparation in the relative terms in which the reviewer speaks of oxidation as compared with other extracts.

It must be obvious that oxidation has gone further in products which have changed from their original yellow-red to a very dark colour, than in one in which the original colour remains unchanged.

Yet the reviewer has represented the dark extracts as "free from oxidation," and ours as "almost entirely from oxidation."

We think that he has also slightly over-estimated the percentage of alkaloid, which had been adjusted under Dr. De Vrij's direction so as to give but a small excess (for precautionary reasons) over the Pharmacopœia standard, say 5.1 per cent. With thanks for your courtesy,

We are, yours faithfully,

DE VRIJ'S CINCHONA COMPANY.

2 Fisher Street, Red Lion Square, London, W.C.

October 17.

SIR,—May we correct a misapprehension that has been entertained in your notice of our fluid extracts of cinchona, B.P. and special, in your issue of October 15, p. 609.

We have not, as you suggest, used a private process for the manufacture of the B.P. article, but have to all intents and purposes followed the B.P. instructions, only bringing our chemical knowledge of bark to bear on minor questions of detail. Consequently our preparation is made with acid, as a few drops of nitrate of silver would instantly show.

As you say, the controversy will probably rage about the proportion of cincho-tannates of the alkaloids contained therein; but we, mindful of the theory that it is specially to

these latter constituents that the peculiar therapeutic action is due, have thought it better not to deviate from the Pharmacopœia, which gives no instructions for their removal. If the result of the coming controversy be that cincho-tannic acid is to be, as far as possible, eliminated, we shall doubtless be quite prepared to meet the views and wishes of those desiring such a preparation. In the meantime we shall continue to make the B.P. 1885 extract according to the official instruction, which in our hands has produced the liquid extract of cinchona, B.P. 1885, that you have done us the honour to report upon.

We are, sir, yours faithfully,

Stratford, near London, E.

HOWARDS & SONS.

October 19.

### The British Pharmacopœia Corrections.

*To the Chemist and Druggist—*

SIR,—A list of corrections to the British Pharmacopœia is published in a form which will be regarded as singularly incomplete. I do not mean incomplete as regards the number of corrections, though I believe this may be added too, but incomplete in respect of any obvious connection between the sheet on which the list is printed and the work to which it is supposed to refer. A diligent comparison of pages and lines will suggest such a connection; and eighteen years ago, when a Pharmacopœia existed only for convenience, a bare bald list of corrections like this may have answered all practical purposes. It may answer all practical purposes now, and with those who are guided by common sense and knowledge it will answer all practical purposes now. But the British Pharmacopœia since 1875 has been looked up to, not by intelligent pharmacists only, but by public analysts who grope in outer darkness, and by magistrates of official mind. Where is the evidence on this sheet of corrections that the wily manufacturer of ferri et quinine citras has not printed it himself in support of a heinous fraud—that of selling an article yielding only 15 per cent. of quinine when it should yield 16 per cent.?

Is it not plain that, as part of an official work, with which it is not bound up, this forlorn foundling of a sheet should have carried palpable marks of its origin? If the corrections are advertised in the *Gazette*, a copy of the advertisement would have been, perhaps, the best addition to the Pharmacopœia. Failing that, the name of the printers, with a dated statement that "the above list of corrections is printed by order of the General Medical Council," would fully meet all requirements; and I think that one or other of these courses should have been taken.

Yours truly,

15 Laurence Pountney Lane, London, E.C. JOHN MOSS.

### Irish Pharmaceutical Examinations.

*To the Chemist and Druggist.*

SIR,—As an Irish pharmaceutical chemist I cannot allow the opinions of your correspondent, as expressed in your issues of September and November, to pass unnoticed.

He complains of the "utter inadequacy of the examinations in pharmacy, theoretical and practical," for the licence of this Society, and in connection with this subject you give the papers which were set for the last examination, but candidly admit that you have no knowledge of the oral part of the examination; but your correspondent having complained of the pharmacy examination only, I shall give you a short *résumé* of what passed between the examiner and me on this subject when I presented myself for examination, and leave you to judge of the value of your correspondent's opinion. I shall be greatly surprised if some of the licentiates of the Society do not give you full particulars regarding the other subjects in its curriculum.

The examiner (Mr. Evans) began by showing me a sample of mist. ferri arom. Asked me what it was, what its composition and dose, what form the iron was in; a sample of tinct. cinch. co., composition and dose; a sample of several of the B.P. pill-masses for identification, composition, and dose of each to be given as in the preceding questions. How is ext. ergot. liq. prepared, and give dose. Distinguish lin. iodi from tinct. iodi by practical means other than analysis. How I would make pills containing hydrarg. perchlor., and what precautions I would take with same. Give the B.P. method of preparing the green extracts, soft



extracts, and those of a pilular consistence. Give reason for green extracts being treated to the temperatures mentioned in B.P. How are the preparations of iodide of mercury prepared; give dose of each, give strength of infusion of digitalis, and dose. Same in regard to kousoo; and anything peculiar about this infusion (meaning, of course, its not being ordered to be strained). Give the B.P. infusions in which *hot* and *cold* water are used, and cause for hot being used in some and not in others. The strength of different tinctures, and whether made with proof or rectified spirit, and why so made. Describe how to make syr. ferri iodid., B.P., and what changes occur. Several questions on the unguenta.

After this the examiner produced a book with some very illegibly-written prescriptions, some of which he requested me to read to him in extended Latin, questioned me concerning doses of the different ingredients, and what I would consider a dangerous dose of some particular preparations prescribed. All this time I had no possible opportunity of being prompted, as your correspondent has stated in reference to the examinations in general. And all the questions were oral.

Next came a blister to be spread for right ear. A prescription for a dozen pills to be dispensed, the pills to be silvered, though not so ordered by the prescriber. An 8-oz. mixture and half-a-dozen powders to be dispensed, and turned out as if to a customer. Lastly came the written paper on pharmacy, with which I will not trouble you.

The examiner allots 60 per cent. of his marks for the practical and oral and 40 for the written, and a candidate must score 45 per cent. in each subject to secure a pass. I knew a candidate who scored about 48 per cent. in the aggregate, yet was relegated to his studies for a further period of three months because he failed to make the required percentage in a particular subject.

I believe in the matter of examinations the Society ably fulfils its duties (no matter how we may disapprove of its management of some other matters which come within its sphere), and that it is by a general examination, such as this, that the knowledge of a candidate is best tested, and not by a few catch questions such as are nowadays too frequently given at both professional and competitive examinations.

Yours truly,

Belfast.

W. H. MADDEN.

#### Ext. Ipecac. Acet.

To the Chemist and Druggist—

SIR,—I am obliged to you for drawing attention to the error in my letter on this subject in last month's issue. The mistake was purely a slip of the pen, my intention being to point out that each ounce of the *wine* should contain  $4\frac{1}{2}$  grains of the acetic extract. And this result is practically the same as that got by the "Pharmacist" to whom you "submitted my statement" for verification.

Edinburgh,  
November 27.

Yours respectfully,

W. RICHARDSON.

#### Vinum Ipecac.

To the Chemist and Druggist—

SIR,—Noticing in last month's CHEMIST AND DRUGGIST Mr. Richardson's experience with ext. ipecac. acet., I venture to send you the results I have obtained in its preparation.

I have twice made vin. ipecac. B.P., 1885, and on each occasion have obtained 436 grains from 4 oz., giving an average of 109 grains from 1 oz. of the root. I may add that I percolated the liquor until it was as clear as if it had been filtered.

November, 1885.

Very faithfully yours,

J. WYNNE TIGHE.

To the Chemist and Druggist—

SIR,—My experience of the B.P. form for vin. ipecac. does not indicate the difficulty some appear to have had with it. The secret for successful powdering of the extract is, I find, keeping it well stirred during the finish of the evaporation. The result in weight seems, according to correspondence, to vary considerably. I made two lots of extract from the same parcel of ipecacuanha, and found the weight from each exhaustion equal—102 grains from the ounce.

This great difference in the yield of various samples of the root, therefore, precludes the possibility of stating a fixed quantity of extract for each pint of wine; the quantity can only be determined by the P.P. process of finding the actual yield of each fresh parcel. When this is done, that particular extract may then be marked with its proportions for future use. I also found that a wine freed from tannin caused a fuller solubility of the extract, and now shows no deposit after standing some time, whereas ordinary sherry does cause a very slight deposit.

Cheltenham, November 20.

Yours faithfully,

G. BRISLEY.

#### Simple and Compound Tinctures.

SIR,—I wish, through the columns of your widely-circulated paper, to refer to a subject which I think is of great interest to pharmacists in general, and about which I feel there is a great diversity of opinion. I refer to the use of tinct. benzoin, tinct. guaiaci, and tinct. cardamomi. There are others to which the following remarks are applicable, but I have chosen these as being the most extensively-used preparations. Now, what is understood in pharmacy by tinct. benzoin? Take, for instance, the following prescription:—

Tinct. benzoin ..	..	..	..	..	3vj.
Ol. Pini sylvest. ..	..	..	..	..	3i.
Ol. eucalyptus ..	..	..	..	..	3j.

M. Inhalates guttae.

What would your readers dispense in this case? For my own part, I should have no hesitation in using tr. benz. co., P.B., although I am aware that in some establishments simply a solution of benzoin in spirit, as given in Squire's "Companion," would have been used. But where is their authority for so doing? Tinct. benz. co. is often written by medical men as tinct. benz., and the fact that tinct. benz. co. is used in the vapor. benz., Throat Hospital Pharmacopœia, gives greater weight and cogency to those who argue in favour of the official tincture. Again, take, for instance, tinct. cardamom in the following prescription:—

Sodæ salicylate ..	..	..	..	..	5iss.
Tinct. card. ..	..	..	..	..	5ij.
Aqua chlor. ..	..	..	..	..	ad 3vj.

Fiat mist. 3ss, ter die sd.

I suppose scarcely anyone, not even the most scrupulous dispenser, would have any hesitation in using the P.B. preparation, and yet I know of instances in which the tinct. card., L. and E. Pharmacopœia (1836), has been used. Comment on such procedure is needless. Suffice it to say, that I hope the subject I have thus opened will lead to the full discussion of this much-vexed question in these columns, and that it may lead to an expression that will result in placing it on a definite footing.

Yours truly,

A. P. S.

#### Draper's Liquor Iodi Decoloratus.

To the Chemist and Druggist—

SIR,—I shall feel obliged if you will afford me space to say, in reference to my paper on "Liquor Iodi Decoloratus," which appeared in the October issue of THE CHEMIST AND DRUGGIST, that my comments upon so-called colourless or "decolorised" tincture of iodine were entirely based upon published formulæ and upon chemical facts, and were by no means intended to apply to any proprietary preparation. I myself thought this obvious, but as I have received a communication from Mr. John Evans of this city, in which he points out that my strictures might possibly be taken as including a preparation of his own, it seems necessary to make this statement, and I wish to supplement it by saying that I have not examined any proprietary solution of the kind, and have not even seen that of Mr. Evans.

Yours faithfully,

Dublin, November 24.

HARRY N. DRAPER.

#### Practical Comments.

To the Chemist and Druggist—

SIR,—I enclose my subscription, 10s., for the C. & D. for the year. Allow me to correct a receipt for "Hop Bitters," September number, 1885, page 549, No. II. The podophyllin is an over-dose quantity. The receipt is given just the same in "Five Hundred Practical Trade Receipts," by Simpkin &



Marshall, except the quantity of podophyllin—viz., 4 grs. podophyllin to 1 oz. rectified spirit, and  $\frac{1}{2}$  oz. of the above strength to 20 oz. of hop bitters, instead of  $\frac{1}{2}$  drachm, as published in *C. & D.* I have tried several of the receipts given in *Diary*, 1884, and find them very good. The bichrom. ink, given, I think, in the January number, 1884, is very good. (I am now writing with it, but have not yet quite got it to perfection.) The bichromate of potash quantity given is far too small. It requires quite three or four times the quantity to make a black writing-ink, but must not be over-done; otherwise adds to the thickness of the ink, which, I think, is better strained as directed, and then allowed to settle for some time and decanted. Oak-stain receipt, *Diary*, 1884, is a good one, and cheap. Benzoline, to purify by oil of vitriol, &c., is a good method also. "Liquor Cocci" is an excellent receipt, and "Emery-powder and Paraffin for Steel Goods" as given is very good, but am not quite sure that it is not improved by the addition of  $\frac{1}{4}$  lb. very finely powdered and sifted pumice-stone. The receipts given for glycerine jelly are many of them very good, but they omit the most essential part to obtain a clear jelly—viz., to be filtered by the aid of heat in a moderately warm oven, otherwise the jelly will cease to drop through the filter. Shall be glad to have a little information about the ink, as to exact quantity of bichromate of potash required, and can anyone give a good cement for sticking glass and earthenware? The "Diamond" is the best, no doubt, if made properly. Only once I made it, and stuck a  $\frac{1}{2}$ -pint glass measure, left it immersed in a pail of water all night, and used it for two years afterwards; but generally it does not do very well. The receipts given in various books are, like many other receipts, absurd. Mastic is ordered to be dissolved in s.v.r., which is impossible.

Yours respectfully,  
JOHN ING.

Aldeburgh, November 17.

#### Proprietary Medicines and Chemists.

The proprietor of Fellows' hypophosphites has lately issued a circular which, no doubt, many chemists have received, appealing to dispensers to discountenance the purchase and employment of certain "unreliable and dangerous imitations" of his preparation, giving such reasons as are obvious. One of our correspondents sends us the copy of a letter he has sent to Mr. Fellows in reply to his circular. This letter states the case of the retail chemist against the specialty manufacturer very fairly, and will perhaps be read with some interest. It is as follows:—

SIR,—I am in receipt of your circular, and in reply beg to state that I make it a point never to substitute another drug for what is prescribed, and I do not believe any respectable druggist does so. The circular, while professing to be written on behalf of all concerned—chemists, medical men, &c.—bears internal evidence of more concern for the interests of the proprietor of "Fellows' Hypophosphites" than that of the dispensing chemist, whose interests it entirely ignores.

The circular says that the character and reputation of "Fellows' Hypophosphites" are a valuable portion of "my capital in trade"; but you do not appear to recollect that the skill and time of the dispensing chemist are a large portion of his capital in trade. It has been principally, if not solely, through his energy in pushing and recommending proprietary articles and specialties that these articles have obtained a footing in public estimation. You speak of injury and injustice. How has the trade been rewarded? The very prices printed on the articles as the *retail price* seem to be a mere snare and delusion, and only calculated to bring the trade into disrepute.

I have lying before me a grocer's retail price-list, in which "Fellows'" 4s. bottles of syrup are quoted at 2s. 11d., and the 7s. size at 4s. 11d., prices at which retail druggists cannot purchase it from wholesale houses. What is the public to think of this discrepancy of prices? Is there no injury and injustice here? I do not wonder, therefore, that the chemist and druggist, who has served a long apprenticeship and spent a considerable amount of money in qualifying himself to pass a pretty stiff examination before he can be allowed to start business, should spurn to act longer as a mere huxter of secret preparations, and compete with grocers at unremunerative prices.

If he prefers now to push into sale preparations of his own manufacture, with the composition of which the medical men who patronise him are acquainted, and in which they have confidence, I would ask who is to blame?

I am, yours sincerely,  
JOHN FREELAND.

Bathgate, December 2.

#### An Awkward Liniment.

To the Chemist and Druggist—

72/14. *Liniment*.—I can hardly see that the term "puzzle" is applicable to this apparently incongruous mixture. I have succeeded in producing a very presentable preparation of rather softer consistence than vaseline by simply adding, with constant trituration, the lin. camph. co., drop by drop, to the ung. potass. iodid. Combination does not take place readily, and unless the greatest care is exercised in the manipulation it is impossible to incorporate the whole of the lin. camph. co. It is in this particular that a dispenser is likely to fail. He will either add the liniment too quickly, or will add it to a certain point till he finds it separates, and thus rejects it as a failure.

Yours truly,  
TORQUAY, November 17. W. MORRIS.

SIR,—I have tried the "puzzle" mentioned in your last issue—a mixture of lin. camph. co. and ung. pot. iodid. I find that, by gradually adding the lin. camph. co. to the ung. pot. iod., and rubbing down well with a little pulv. saponis, the result is a permanent creamy ointment. This practically confirms your experience.

50 Southwark Street, S.E. I am, yours truly,  
November 26. A. P. RIDLEY.

#### Austrian Pharmacy.

To the Chemist and Druggist—

SIR,—In the August number of your journal appeared a letter, signed "J. N.," in which the writer, referring to the decision of the Pharmacy Board of Victoria, in not accepting the certificate of the Pharmaceutical Society of New South Wales, says:—"The Victorian Board has not the power, under their present Pharmacy Act, to recognise the New South Wales certificate, and should they desire the power, I am doubtful about the Board obtaining it from the Victorian Parliament."

The statement of your correspondent is incorrect, and on reference to the Victorian Pharmacy Act it will be found that power is given to accept certificates by resolution of the Board. The following is the clause referred to, and will be found in section 18 of the Victorian Act—

(Section 18, sub-division 3):—"He holds a certificate or diploma of competency as a pharmaceutical chemist or as a chemist and druggist or homeopathic chemist from the Pharmaceutical Society of Great Britain, or any College or Board of Pharmacy recognised by the Board under any regulations made under this Act."

I have the honour to be, sir, your obedient servant,  
HARRY SHILLINGLAW,  
Registrar.

#### Gratifying Testimony.

One of our recent letters contained the following:—

To the Chemist and Druggist—

"As I have myself benefited to a very great extent from the columns of your journal since first entering your list, and especially from the admirable 'Treatise' of the now closing *Diary*, I hope very many of the apprentices and assistants of the profession will, if only for their own benefit, take advantage of this month's issue to subscribe, so as to have the *Diary* for 1886.

"The first half-sovereign I earned as an apprentice was spent on your journal, and certainly it was not lost, as, apart from the mental profit, and consequent rise in business, derived from reading, I have found very little difficulty in making up my subscription from its pages before the third copy of the year reached me. The chemist, you see, has his wants as well as his customers.

"My dispensing experience was limited to something like a dozen prescriptions during my entire apprenticeship, certainly not more, and those of the simplest possible kind.



Still, I managed to pass my examination with credit, and now I prefer a crusty governor watching over my shoulder for the results of either suppositories, plasters, or emulsions, rather than a simple mixture or pill.

"My only tutor was your print. Your editor has said, and truly so, 'Practice alone will make a dispenser,' but a dozen simple prescriptions afford poor practice. This is how I managed the practical part:—Obtaining permission, and providing my own materials, I worked from 8.30 to 11.30 two evenings a week for five months from the Treatise in the present Diary; trying every example and mode of manipulation recommended by the different critics. The official plasters were spread of different shapes, a  $\frac{1}{2}$ -lb. roll of each being used. The official suppositories, as well as the 'Extra Pharmacopœia' list, were gone over four times, three being made of each. This produced a very fair retail stock, and no mean assortment. How to dispose of them so as to make up for expenditure, was soon settled by showing them to a practising surgeon.

"You are at liberty to use this as you please, the name not to be divulged."

#### Doctors Dispensing.

*To the Chemist and Druggist—*

SIR,—In these days of increased restrictions and more severe examinations for those who practise pharmacy, one is struck more and more by the fact that all rules made to protect the public apply to chemists alone, and not to medical men who dispense.

That such rules and regulations should apply to them also must be quite patent to anyone reading the case enclosed, taken from the *Leeds Mercury*.

If it was the case of a chemist having done such a thing hanging would not be thought bad enough, but a doctor gets off with a very mild censure; and yet doctors say, "We dispense because chemists are incompetent." In my experience I never knew such a gross act of carelessness, not even by a so-called incompetent chemist.

Yours truly,

A DISPENSER WITH TWENTY YEARS' EXPERIENCE.

The case reported is that of an inquest on the wife of a market gardener, who died through taking some embrocation instead of internal medicine. Mr. Lumley, the surgeon who supplied the bottles referred to, said the embrocation contained a very strong preparation of belladonna, and he had no doubt the woman died from the effects of that poison. Although the embrocation was poisonous, he did not think it necessary to place any label on the bottle to that effect, or to warn the persons of its nature. The bottles were produced, and were of the same shape, and the one containing the embrocation was graduated in tablespoonful doses, the same as that in which the mixture was. It had on it a label, "The embrocation to be used twice or three times a day." The jury recorded as their verdict "that the deceased was poisoned by belladonna, administered to her by mistake, and that the medical attendant was not free from blame in the matter."

#### Fellon-wood—Dulcamara not Poisonous.

*To the Chemist and Druggist—*

SIR,—With your permission, I am desirous of speaking to your readers, especially those who are interested in medical botany. On page 621, October number, and 685, November number, fellow-wood, or "bitter-sweet," *Solanum dulcamara*, is referred to. One correspondent, "A Learner," seems to rejoice in the thought that he had discovered, not a "mare's nest," but a scientific truth. He says: "I reminded the farmer that it was a poisonous herb; he was perfectly aware of it." Then the confession, "I am not a botanist, but have a sufficient smattering to put it to account sometimes." Such a statement, I think, tends to support the old adage, "A little learning is a dangerous thing." Such statements are apt to mislead, and should be corrected whenever there is an opportunity. Over twenty years' practical experience with this plant enables me to say that *S. dulcamara* is as free from poison as its twin brother *Solanum tuberosa* (common potato). I maintain that the plant is a valuable alterative and blood-corrective in some cutaneous diseases, given in syrup, infusion, tincture, or fluid extract. I have cured cases of psoriasis with this herb when many other remedies had

failed. Ancient writers on botany generally speak of this plant as a reliable medicine. Boerhaave says a large teacupful of the infusion from the twigs, taken three or four times a day, is a sweetener of the blood and juices. Linnæus says few medicines are better adapted to afford relief in acute rheumatism, fevers, and inflammations. Hallemberg says an infusion of the plant may be given in two or three teacupful doses twice a day in rheumatics, jaundice, dropsy, scurvy, and syphilis. Dr. King, U.S. Dispensatory, describes the plant as alterative, diaphoretic, diuretic, and in large doses mildly narcotic; useful in eczema, lepra, porrigo, scrofula, &c. I could support my opinion by a score of authors, but will close with that of Garrod in his "Materia Medica," 1884 edition, page 318:—Dulcamara is employed in chronic skin diseases, as lepra, psoriasis, and, occasionally, in syphilis. He has given as much as 60 oz. of the infusion (concentrated) during the day, and  $\frac{1}{2}$  lb. of the fruit of the tree (ripe berries) as a conserve, and with no unpleasant symptoms. This, I hope, will convince "A Learner," and cause him to inquire further before he again attempts to teach others.

Yours respectfully,

G. BROWN.

#### Chemist's Balance-sheets.

SIR,—Some time since I mentioned the subject of keeping books to you; but I daresay you have forgotten it. I do not mean day-book and ledger, as that is simple enough.

But what I want to know is the best way to keep accounts so as to know the profits that are made, and how one stands pecuniarily.

I enter takings in one book and disbursements in another, but I sometimes get into a muddle and think my way is unsatisfactory.

If you could give us a specimen of the proper way, I think it would be appreciated.

IGNORAMUS.

We gave a short note on this subject in May last, but suppose that was not exactly what was required. It will be very useful if some chemists will explain their system of showing financial results.

Such, too, appears to be what is wanted by our next correspondent, though his letter is somewhat roundabout.

*To the Chemist and Druggist—*

SIR,—To write under *nom de plume* is a delightful exercise, in which the intellectual legs may be stretched and the ideal fancy indulged at will. No veil need be drawn over the imagination, and the past history may be fearlessly disclosed, for the editorial ægis is cast over such confidential disclosures, and whilst we read the real experience of some rejoicing or sorrowing brother, his name is all unknown to the thousand eyes that scan his thrilling story. Looking over your advertising columns, no one can fail to be struck with the infinite variety of business experience the teeming page reveals. How interesting if a tenth part only of the inner life were disclosed!

The success or otherwise of a change of businesses, and the mode in which that delicate operation was conducted; the varying result of certain ventures to increase the income, such as proprietaries, insurance, dentistry, optics; the plan adopted by some to secure sufficient education and support for a growing family, when the business return instead of advancing undeniably recedes; a specimen of last year's balance-sheet, not asking for a disclosure of personal or social secrets, but a really good plan of tabulating (some imaginary, if preferred) business man's income and expenditure; any or all of these points variously treated would open out a very interesting branch of experience, and be as popular as any other page of that wonderfully complete journal THE CHEMIST AND DRUGGIST.

Yours faithfully,

NOM DE PLUME. (79/68.)

73/70. D. Black.—Ung. Iodi.—In the list of corrections we have "For 19 read 191." Properly it should be 192; but we must remember that this is only an attempt, and the promoter of the scheme does not guarantee absolute accuracy.

72/73. W. H. Tunley.—Colour for Lip-salve.—There is nothing so good and reliable as alkuret. When the colour of it begins to fade you may be sure that the salve is becoming rancid and unfit for use.



81/43. *A. P.*—**Syrup of Anise.**—A simple mixture of syrup and spirituous solution of this oil will not keep clear. Try the following modification of your formula:—

Olei anisi .. .. .	3 grs.
S.v.r. .. .. .	3i.
Aque .. .. .	3xiii. or q.s.
Magnes. carb. levis .. .. .	5ss.
Sugar .. .. .	3xvi.

Dissolve the oil in the spirit and pour this into a pint bottle containing 8 oz. of water and the magnesia. Shake well frequently during three or four hours, then filter, and wash the filter with the rest of the water until 14 oz. of filtrate are obtained. In this dissolve the sugar without heat.

This is the usual form:—

Fruct. anisi (bruised) .. .. .	3ij.
Boiling water .. .. .	0j.

Infuse for an hour, strain, and dissolve 2 lbs. of sugar in the liquor.

#### 72/61. *J. T. P.*—**Red Spirit-varnish.**—

Shellac .. .. .	16 oz.
Sandarac .. .. .	10 "
Elemi (soft) .. .. .	4 "
Dragon's blood .. .. .	4 i. or q.s.
Methylated spirit .. .. .	1 gallon

Digest for a week, shaking frequently, then strain. You may add more or less of the dragon's blood, according to the colour you require.

68/78. *J. G.*—**Bay Rum.**—We gave the following (from Kilner) a year ago, and have not since heard it praised or condemned:—Oil of bay, 1 drachm; oil of nutmegs, 5 drops; oil of orange,  $\frac{1}{2}$  drachm. Dissolve in alcohol, 2 pints. Add Jamaica rum, 4 oz., and water to make 4 pints. Let stand two or three weeks and filter through magnesia—Kilner adds "and charcoal," but this must be worse than superfluous.

**Danish Butter-colouring.**—Mr. W. Richardson, Edinburgh, sends the following in reply to "Subscriber," 71/62:—

Annatto hispan... .. .	3i.
Potassæ subcarb. .. .. .	3i.

Aq. dest. q. s. to form a soft paste, or solution if desired.

**Felon—Felon-wort.**—In Mr. C. C. Bell's letter, printed last month, the old author Gerarde was inexcusably printed "Gerade"; and the translation of the High German *Jillan* was given as "to torment, or flog," whereas the last word should have read "flay," which, it will be seen, renders the context clearer.

*To the Chemist and Druggist*—

SIR,—I will be much obliged to you if you can give me a formula for a real good tooth-paste to whiten the teeth. When I use myrrh, &c., it makes them yellow. An answer in this month's journal will oblige, Yours truly,  
Cobden Street, Darlington, A SUBSCRIBER.  
December 4.

79/70. **Khabardar.**—We trust that you will get in our Diary for 1886 full explanatory matter on the new Pharmacopœia. The notes on chemicals have been written by a thoroughly competent practical pharmacist, who knows what is wanted.

77/7. *Subscriber.*—**Flavouring Essences.**—Almonds and cloves. One part of the essential oil in 19 parts of rectified spirit. Use "ol. amygdal. essent. sinc acid. Prussic." Lemon essence, 1 part of ol. limonis to 9 parts of absolute alcohol (which is required to make a clear solution). If this essence be too expensive for you, use rectified spirit instead of absolute alcohol, adding 1 oz. of magnes. carb. levis to the pint, shake occasionally, and filter after two days.

79/16. *Australian.*—**Granular Preparations.**—On the large scale steam-heat alone is employed, which ensures well-

formed granules and no charring. If you do not have a steam-jacketed pan you may use a large iron evaporating-dish (enamelled): and for heat a Fletcher's furnace. Try this formula, it gives a very good preparation:—

Bicarbonate of soda .. .. .	17 oz.
Tartaric acid .. .. .	13 "
Citric acid .. .. .	2 "
Sulphate of magnesia.. .. .	$\frac{1}{2}$ "
Sugar .. .. .	2 lbs.

The whole in fine powder; to be well mixed.

To granulate you put a pound or two into the large basin, and place it over the furnace, which should be giving as moderate heat as possible. Stir continuously, and in the course of an hour the granules form; separate the largest of these, if desired, by sifting, and put the smaller into the dish again, along with a fresh quantity of powder. If you take care not to overheat the dish you will very soon become an expert granulator. The cost of this "citrate" is about 8d. a lb. for materials.

154/10. *X. Y. Z.*—**Parrish's Syrup.**—Our correspondent has tried Martindale's form, but cannot say that he has found it a success. We are indebted to an eminent pharmacist for the following form, which, he says, "makes a fine, clear syrup, without any deposit whatever, if made properly. There is not a large quantity of iron and calcium phosphates in it, but there is quite sufficient to give good physiological effects. The best proof is that of having no complaints, besides; if more were in it, it would, like others, be very unsightly":—

Ferri sulphatis .. .. .	5 oz.
Sodæ phosphatis .. .. .	6 "
Calcii chlorid. exsic. .. .. .	4 "
(or calc. chlor. crystal., 8 oz.)	
Sodæ phosphatis .. .. .	8 "
Potassæ carbonat. .. .. .	2 drachms
Sodæ carbonat. .. .. .	2 "
Liquor coeci, q.s. to colour	
Acid. phosphoric (syrupy, sp. gr. 1.500) .. .. .	15 oz.
Sacchari gran. .. .. .	32 lbs.
Aque .. .. .	16 "

*Directions.*—Form ferrous phosphate by dissolving the salts separately in boiling water, mix together, neutralise free acid with sodium bicarbonate, strain through felt and squeeze precipitate strongly.

Treat calcium chloride with phosphate of soda in the same manner, omitting the addition of the bicarbonate. Transfer the precipitates to a mortar, pour upon them the phosphoric acid, and dissolve by stirring; now add the sodium and potassium carbonates, and filter.

Have a syrup made with the proportions of sugar and water stated above, add to it the filtered solution, then colour to the desired shade by means of the cochineal solution.

79/12. *G. A. Y.*—**Alkaram Substitute.**—Fill the bottles with a mixture of

	Parts
Carbonate of ammonia .. .. .	13
Camphor .. .. .	3

and moisten with sufficient of the following solution:—

	Fluid Drachms
Carbolic acid .. .. .	1
Liniment of iodine .. .. .	1
Strong solution of ammonia .. .. .	3
Rectified spirit .. .. .	3

Colour the smelling-salts with charcoal if desired black.

78/17. *Revilo.*—See reply to "Apprentice" in our October number, page 623.

77/35. *D. S. D.*—**Blocking-powder.**—What you send appears to be powdered resin, with a small quantity of sandarach; 9 parts of the former and 1 of the latter would suit.

76/13. **Vin. Pepsin.**—Your formula contains too much pepsin and hydrochloric acid. The following, from our 1884 Diary, is a reliable formula:—

Pepsin porci .. .. .	160 gr.
Acid. hydrochlor. dil. .. .. .	℥160.



Dilute the acid to 1 oz. with water, and digest the pepsin in it for an hour, then add—

Glycerin .. .. .	5ij.
Water .. .. .	3vij.

Macerate for two days, shaking frequently, then add 10 oz. of sherry, and, after standing for a few hours, bring up the colour with browning, and filter.

151/17. *D. R. F.*—**Marine Acid.**—Hydrochloric acid: so called by Priestley.

78/49. *S.*—**Blue-black Ink.**—Through exposure, and in presence of the free sulphuric acid, the indigo is rendered colourless. In the formula given in *C. & D.*, 1880, p. 83, instead of sulphate of indigo use indigo carmine, and  $\frac{1}{2}$  drachm of dilute sulphuric acid instead of 35 minims of strong acid.

This gives a much better colour, and if not sufficiently blue you may add more indigo carmine; but it is as well to know that the more blue the ink is the longer it takes to become black. Half an ounce of fresh mucilage of acacia should be added to the 50 oz. of ink.

78/15. *Viridis.*—**Liq. Antim. Tart.**—The formation of the fungus is prevented by the addition of rectified spirit; 4 oz. to the pint was ordered by the old Dublin Pharmacopœia.

The formula given is the only one we know of for **Printers' Roller Composition**. Glycerine, as you suggest, will prevent cracking. Five per cent. of the crude article will be quite sufficient for the purpose.

74/12. *W. G. C.*—**Saffranin.**—This is better known as 'aniline pink.' "Saffranin" (or "polychroite") is the principal colouring-matter of saffron.

*J. T. D.* would like to know of a **Hoof Ointment** in which vaseline is a chief ingredient. Several formulæ for hoof ointments are given in *THE CHEMIST AND DRUGGIST* Diary, 1883, but they are not compounded with vaseline.

71/80. *Inexperience.*—Study the Pharmacopœia with the assistance of the commentary in the Chemists' and Druggists' Diary, and begin chemistry with Attfield. See answer to "A Reader" on page 688 last month.

10/80. *Argentum.*—The illustration you have sent is a zincograph. The same species of work can be done by photolithography, but this latter is not applicable for printing work. As its name indicates, it is only available for lithographic work.

16/76. *Gas.*—The composition used in mixing asbestos for burning in gas-furnaces is asbestos dust, asbestos fibre, and fireclay.

#### Legal Queries.

51/81. *Sirkar* asks whether if one is asked for any such compounds as zinc ointment, precipitate ointment, &c., he is compelled to supply British Pharmacopœia preparations? The 15th section of the Pharmacy Act, 1868, requires that any person "who shall compound any medicines of the British Pharmacopœia, except according to the formularies of the said Pharmacopœia, shall for every such offence be liable to pay a penalty or sum of 5*l*."

52/72. *Durham* asks whether a "silvering solution, consisting of cyanide of silver and potassium in solution can be legally sold by jewellers, ironmongers, &c., simply labelled as 'silvering solution.'" If not, would the affixing of a poison-label make it legal? Such a preparation would come within the first part of the Poison Schedule, and could therefore be legally sold by chemists only, and by them

it must be duly labelled with name of article, name and address of seller, and the word "Poison," and such sale fully entered in the poison book.

26/76. *Constant Reader.*—"If any person uses any methylated spirits or any derivative thereof in the preparation of any article capable of being used wholly or partially as a leverage, or internally as a medicine," he is for every such offence liable to a penalty of 100*l*. By general orders of the Board of Inland Revenue, methylated spirit may be used for the preparation of soap, camphor, aconite, and belladonna liniments, but for no other medicines.

11/80, *Hydrarg.*, and *Subscriber*, 51/80.—The Australian Pharmacy Acts admit to their registers persons who have qualified in Great Britain by examination. But we do not understand that the mere fact of being on the register here gives such a title.

67/80. *A Subscriber.*—The title "Pharmaceutical Chemist" cannot be obtained in Ireland, any more than in England, by purchase. For exact particulars of the Irish requirements see our last September number, or apply to the Registrar, Harcourt Street, Dublin. The Irish certificate does not qualify in any legal way in Great Britain.

63/82. *M. R. C. V. S.*—You must give us your name if you wish us to answer the query.

#### The Weights and Measures Act.

*To the Chemist and Druggist—*

SIR,—I am in the habit of keeping a small brass weight with a crook to slide up and down the arm of my counter-scales for the purpose of balancing small hottles. A short time since the Inspectors of Weights and Measures called, and, after finding all weights and measures correct, informed me it was illegal to balance or keep the above brass weight on the arm of the scales. Will you favour me by letting me know if I am justified in retaining it as formerly, as I have done, or am I running a risk in so doing?

J. H. (79/2.)

We should judge that if an inspector visited your shop, and found your scales with the brass weight attached thereto, he would be technically correct in describing your scales as "false or unjust," whereby (by Clause 25 of the Act) you would be liable to a penalty of 5*l*. Clause 59 provides that where any scale, &c., is found in the possession of any person carrying on trade within the meaning of the Act, such person shall be deemed for the purposes of the Act, until the contrary is proved, to have such scale, &c., in his possession for use for trade. At the same time we do not know of anything in the Act which renders it illegal for you to use such a contrivance as you describe to render your balance just for any special transaction. Probably the Board of Trade would give you a definite answer.—ED. C. & D.

#### The Patent Medicine Stamp.

*To the Chemist and Druggist—*

*Mr. E. Howard*, of 184 Old Kent Road, in a letter dated December 9, tells us of a suggestion he has put before the Board of Inland Revenue to lower the rate of duty on low-priced articles: "Whether they could not issue a halfpenny stamp for a sixpenny article; 1*d*. for a 1*s*. article; 1½*d*. for a 1*s*. 6*d*.; and leave the duty as it now is above these prices? I pointed out that a ½*d*. stamp for a 6*d*. article would bring in a large revenue; that the 1½*d*. stamp was too great a tax; and that chemists would use a ½*d*. stamp on every 6*d*. article they put up, and not charge for it, because it would pay them, as it would enable them to issue any advertisement they chose. If you could bring the subject before the trade I think the proposal would meet the approval of most chemists, and their favourable support, made known through you by correspondence, would no doubt largely influence the authorities."

[In reply, the Board thank Mr. Howard for his suggestion, and promise that it shall be fully considered when a fitting opportunity arrives.]



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In 1-lb., 2-lb., 4-lb., 7-lb., 14-lb., and 28-lb. Boxes, 1/- lb. Special quotations to large buyers.

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Great care is used in the preparation of our Oxide of Zinc, and it is superior to the ordinary Oxides sold as E.F., which frequently contain Arsenic and Sulphate of Zinc in sufficient quantities to prove irritating to the skin.

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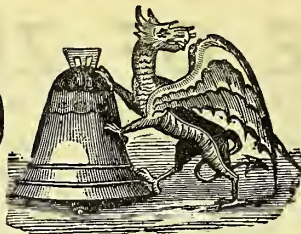
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1880.



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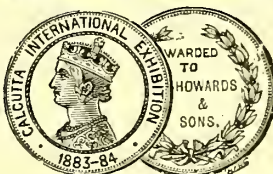
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Fig. 1.



Fig. 5.



Fig. 29.

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[See pages 17, 28, 76, 128, 152, 154, 758.]



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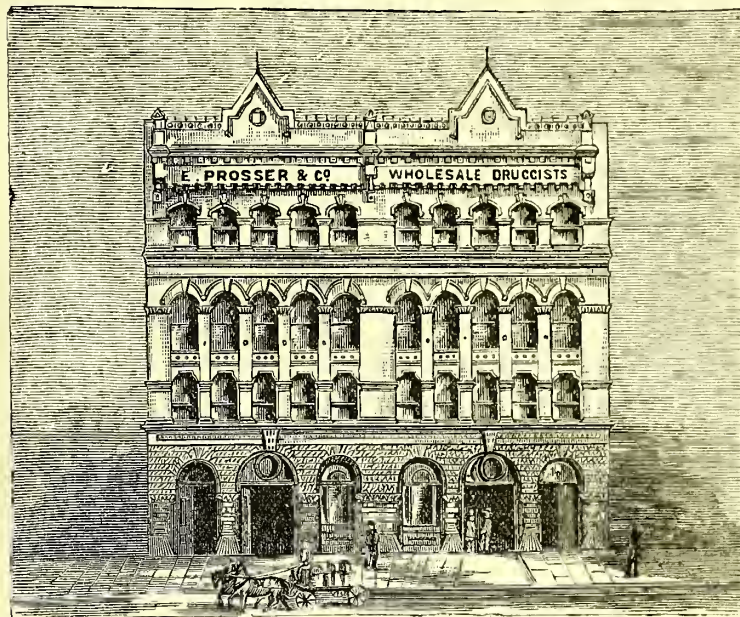
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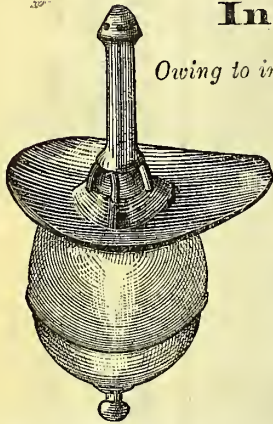
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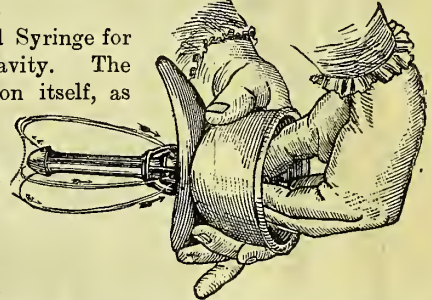
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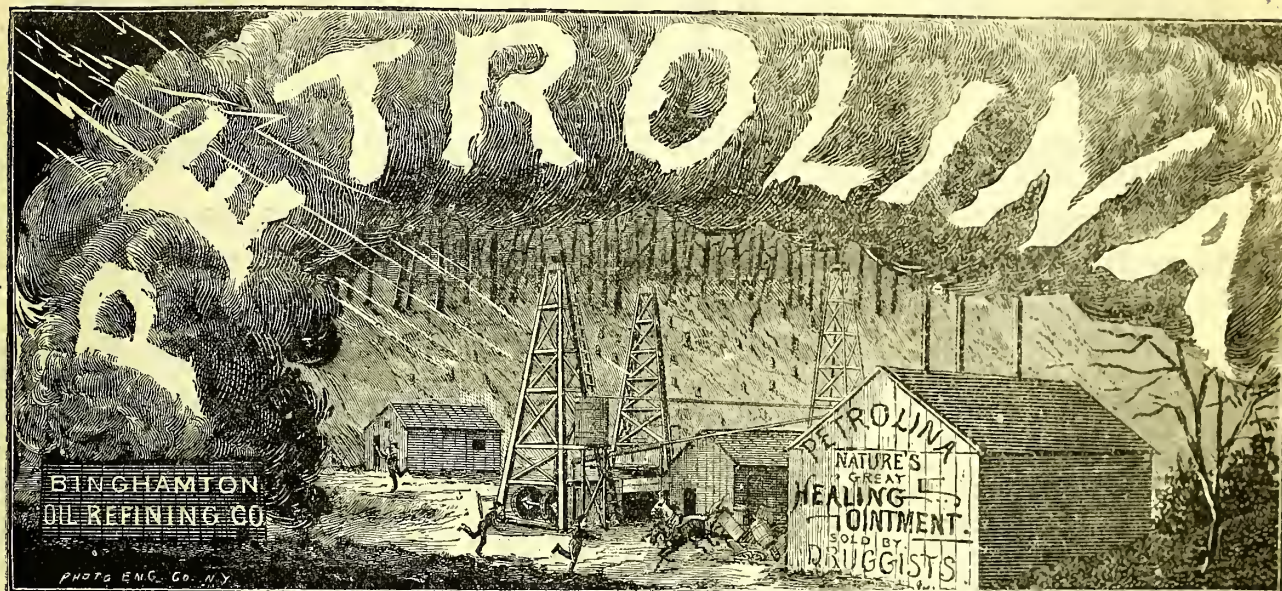
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MELTING POINT 120° FAHR.

Adopted by the U.S. Pharmacopœia as a base for Ointments, Cerates, and Pomades, and used extensively by all the noted surgeons in America, in both hospital and private practice. THE CHEAPEST PETROLEUM JELLY IN THE MARKET.

Being entirely Odorless, handsome in Color and of firm consistency, it fully meets the requirements of the Pharmacopœia and trade. Unlike most of the so-called Petroleum Jellies now being offered, PETROLINA is Manufactured from CRUDE PETROLEUM ONLY, without the aid of Acids or Alkalies, is Chemically Pure, and with the requisite neutrality as to taste and smell it possesses a viscosity of consistency and high melting-point unequalled by any other similar product.

PETROLINA is supplied in three qualities. Packed in casks of 2 to 3 cwt., pails of 50 lbs. or 25 lbs., and handsomely decorated tins of 5 lbs. and 1 lb. Also elegantly put up in bottles of 2 oz. and 5 oz., enclosed in cartons. PETROLINA POMADE, PETROLINA COLD CREAM, PETROLINA CAMPHOR ICE, and other preparations of PETROLINA will be found of superior quality and more attractively packed than any similar goods in the market.

## PETROLINA OIL

Is a superb preparation of Petroleum, perfectly odorless, tasteless, and unchangeable in character.

## PETROLINA HOOF AND HEALING OINTMENT

The most remarkable remedy for diseases of the Hoof and Skin of Horses, Cattle, and Stock generally, that has ever been discovered.

## SPERMOLINE

A SEWING MACHINE OIL that gives perfect satisfaction, is practically superior to the finest Sperm, as it never gums, clogs, or corrodes, and will not become rancid in any climate.

*Of all Wholesale Druggists throughout the world. Agencies in Australasia, South Africa, West Indies, &c.*

Information, Samples, Quotations, and Formulas for Official Cerates and Ointments compounded with Petrolina, free on Application.

**E. A. de PASS & CO., 3 COLEMAN STREET, LONDON, E.C.,**

SOLE AGENTS FOR GREAT BRITAIN.



(Expositions Internationales Grand Prize Medals.)



**ALBERT M. TODD,**  
GROWER, DISTILLER AND RECTIFIER  
—OF THE—



**"CRYSTAL WHITE" DOUBLE REFINED ESSENTIAL OIL OF TRUE PEPPERMINT.**  
ORIGINAL AND ONLY MANUFACTURER OF  
**PIPPMENTHOL CRYSTALS.**

THE "CRYSTAL WHITE" ESSENTIAL OIL AND SOLID CRYSTALS OF PEPPERMINT are produced from SELECT CULTIVATED PLANTS OF GENUINE MENTHA PIPERITA, under improved and special processes (discovered by the manufacturer), by which they combine EXCEEDING STRENGTH with the most PERFECT FRAGRANCE and ABSOLUTE PURITY. In recognition of their quality they have received the highest commendation from the most EMINENT SCIENTISTS, the LEADING CONSUMERS, and at the GREAT EXHIBITIONS. Prepaid samples and quotations for free delivery in any city in America, Europe, or the Colonies, will be sent on application.

GENERAL CABLE ADDRESS, "CRYSTAL, NOTTAWA, MICHIGAN."

\*Trade Mark, **CRYSTAL WHITE** Registered\*

Nottawa, St. Joseph County, Michigan, U. S. A.

**J. W. DRYSDALE & CO.,**

(Formerly with GEHE &amp; CO., DRESDEN.)

4 BURY STREET, ST. MARY AXE, LONDON, E.C.

Telegraphic Address—"FLORENTINE LONDON."

**AGENTS FOR CONTINENTAL AND AMERICAN CHEMICAL MANUFACTURES.**

SPECIALITIES.—QUININE and Chincona Products, "Gold and Silver" Brand, Fine Chemicals, Atropine, Santonine, Pepsine, Caffeine, Silver Nitrate, Pyrogallie and Acetic Acids, &amp;c., &amp;c.

AGENCIES AND CORRESPONDENCE SOLICITED.

Estab. 1868.]

**COCKING & CO.,**

[Estab. 1868.

Commission Merchants, Wholesale Druggists, and Manufacturing Chemists,

**YOKOHAMA, JAPAN.****SPECIALITIES:**

Cocking's Oil Peppermint, Menthol Crystals, Japan Cod-liver Oil, Isinglass, Ginger Oils, Vegetable Wax, etc.

**F. REED & CO.,**  
WHOLESALE & RETAIL  
DRUGGISTS,

Dispensing and Homœopathic Chemists,  
**DURBAN AND POINT,**  
**PORT NATAL, SOUTH AFRICA.**

**GENUINE THIBET MUSK.**

"PHOENIX"  
BRAND,



SEASON  
1883.

Grained, and  
Guaranteed Pure by  
**SYMES & Co.,**  
The Viceroys' Chemists,

SIMLA (HIMALAYAS).

*Lynch's*

MUSK of the above Brand is received direct from SIMLA (in GRAIN only).  
It is now put up in bottles of only one size, each containing 1 oz. avoirdupois.  
PRICE, 2s/; two bottles, 4s/; four bottles, 8s/; For 4 oz. (16 bottles) and upward  
30/ per ounce.

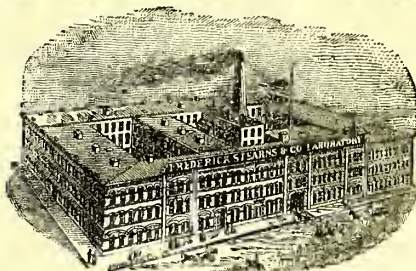
LYNCH &amp; CO., 192 Aldersgate St., LONDON



# FRED'K STEARNS & CO., DETROIT, MICH., U.S.A.,

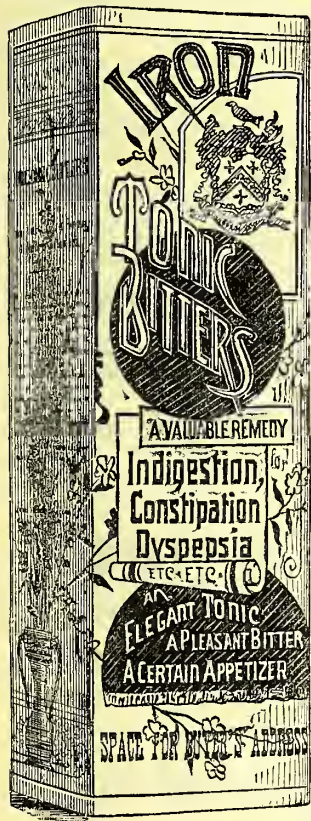
MANUFACTURING PHARMACISTS. POPULAR NON-SECRET MEDICINES. ESTABLISHED THIRTY YEARS.

Under the title of "Popular Non-Secret Medicines," we introduced, in 1876, a line of ready-made medicines and articles, avowedly to supplant patented and secret medicines. The list comprises staple things, like Sarsaparilla, Condition Powders, Cathartic Pills, Liniments, Cough Syrups, Worm Medicines, etc., to simulate the forms and sizes of like popular patented goods; to print the working formula on each package; to make them in large quantities, at a saving in cost of material and labor; to sell them to the RETAIL drug trade exclusively, to print each buyer's name and address on labels and wrappers in place of ours; to sell them on a close margin of profit as manufacturers; to use good glass, velvet corks, excellent printing, elegant engraved and tinted wrappers; to adapt the styles, sizes and prices to meet the popular wants; to furnish the retail druggist (who has few appliances himself) a means to drive patent medicines out of his sales; to enable him to make the profits himself which otherwise go into the pockets of patent medicine manufacturers; to replace quack and secret nostrums by medicines of known composition and value.

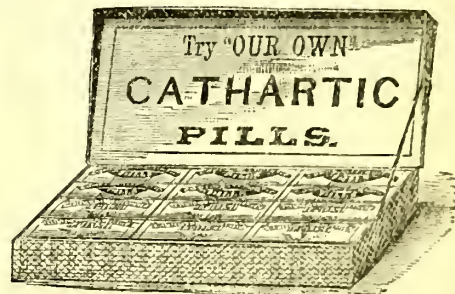
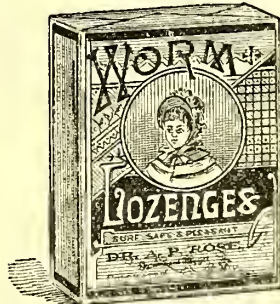


dress on labels and wrappers in place of ours; to sell them on a close margin of profit as manufacturers; to use good glass, velvet corks, excellent printing, elegant engraved and tinted wrappers; to adapt the styles, sizes and prices to meet the popular wants; to furnish the retail druggist (who has few appliances himself) a means to drive patent medicines out of his sales; to enable him to make the profits himself which otherwise go into the pockets of patent medicine manufacturers; to replace quack and secret nostrums by medicines of known composition and value.

## NEW CATALOGUE NO. 84.



Illustrated Descriptive Price List of the Popular Non-Secret Medicines, Toilet and Domestic Articles, 55 now out. It contains 96 Pages and 196 Engravings. Is Furnished to Retail Druggists FREE.





# DRUGGISTS' SUNDRIES

## IMPORTANT NOTICE.

*December 14th, 1885.*

The undersigned have much pleasure in calling the attention of the Trade and Shippers to the New Edition of their **ILLUSTRATED DRUGGISTS' SUNDRIES LIST**, which has been carefully revised to date and numerous additions made, and attention is drawn to advertisements of specialities in November issue of "The Chemist and Druggist."

This List will be found most complete, and so arranged as to be easily referred to. It will be forwarded free to any Registered Chemist and Druggist on receipt of Business Card.

N.B.—The word SAVARS has been adopted and duly registered by the Proprietors as a Trade Mark on every description of Druggists' Sundries supplied by them to the Registered Chemists and Druggists only.

Sole Proprietors—

**EVANS, SONS & CO., LIVERPOOL.**

LONDON:

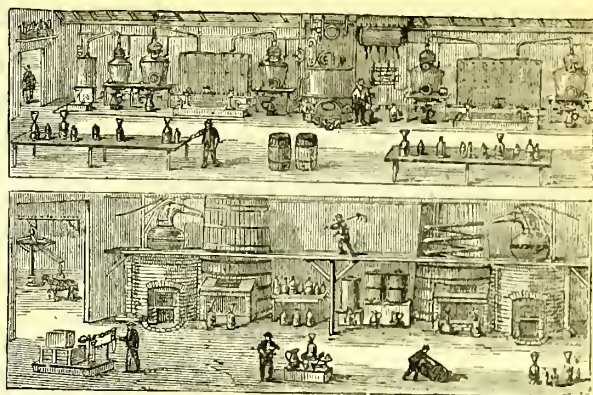
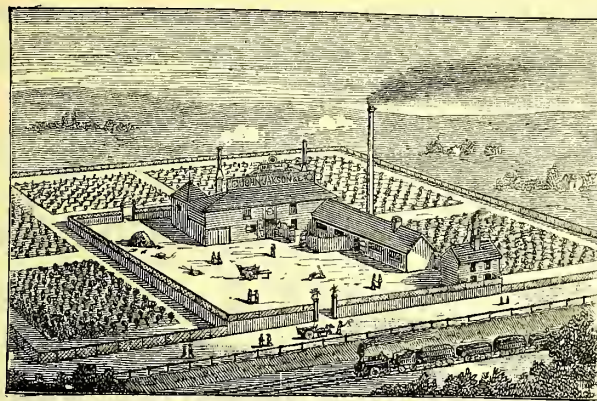
**EVANS, LESCHER & WEBB.**

CANADA:

**EVANS, SONS & MASON (LIMITED),**  
Montreal and Toronto.







# MITCHAM

Peppermint, Lavender Oils, etc., Steam Distilleries,  
MITCHAM ROAD, NEAR WEST CROYDON, SURREY.



City Offices:  
17 Philpot Lane,  
Fenchurch St.,  
LONDON, E.C.

## JOHN JAKSON & CO.

Agency & Depôt:  
40 Rue de la Verrerie,  
PARIS.

Each Bottle must bear the above Trade Mark, under which we send from our Mitcham Distilleries only PURE Peppermint, Lavender, and Camomile Oils. Each Bottle is labelled, specifying that our Oils are guaranteed PURE, and as such are INVOICED.

THE soil and climate of the District of Mitcham (Surrey) are most favourable to the good culture of Peppermint, Lavender, and Camomile, and produce those qualities of Essences so much sought after by Chemists, Druggists, &c., throughout the world.

It is beyond dispute that our Peppermint Oil is the best manufactured, and we defy competition, which accounts for the high prices obtained.

We are the largest Growers and Distillers of Peppermint, Lavender, and Camomile in England, and we spare no expense in obtaining the highest state of cultivation. We distil only the pure plants, the greatest care being taken to avoid weeds or heterogeneous substances.

Our Distilleries are built on the newest and most approved principles; the addition of steam power aiding us to produce the best results obtainable. Our Essences are entirely white, and, being free from resin, they will retain their strength for an indefinite period.

We are particularly anxious that our Trade Mark should not be confused with that of numerous so-called Distillers and others, who import inferior and foreign productions, all of whom represent their oils as from Mitcham.

The low price of American Mint Oils is easily accounted for by the great difference in quality. It is well known that extensive factories have been built there for the extraction of Menthol, which operation greatly diminishes the quality of these Essences.

We protest against all such products offering no guarantee to purchasers.

All Oil-bearing our Trade Mark are guaranteed pure and genuine, Mitcham Grown and Distilled. By using our Oils, Chemists, Perfumers, Druggists, and others can rely on the regularity of their preparations, a result hitherto impossible to obtain, and at much less cost.

Besides which, the good Flavour and Strength of our Essences (due to the unquestionably favourable and unrivalled nature of the Mitcham soil) obtains for them the preference from all Peppermint Liqueur Makers, who have acquired, by the use of them, such good fame in England and throughout the world.

Peppermint Alcohols, Dentifrices, and other liquors prepared with our Mitcham Peppermint Oil obtain great superiority, easily ascertained by a trial.

We cannot too strongly urge purchasers, in their own interest, to buy, in preference to all others, our native and genuine products, as they offer besides every guarantee of purity, strength, flavour, and economy.

Awaiting your esteemed demands,

We are, your obedient Servants,

J. JAKSON & CO.

Orders must be sent to our London Office:—17 PHILPOT LANE, FENCHURCH STREET, E.C.

Our Essences are put up in Bottles of  $\frac{1}{4}$ ,  $\frac{1}{2}$ , 1, 2, and 5 lbs.

### PRICES.

N.B.—The following quotations are only for small quantities. From 6 lbs. and upwards special arrangements can be made at reduced prices.

MITCHAM PEPPERMINT OIL, Non-Rectified..	40/ per lb.
MITCHAM PEPPERMINT OIL, Rectified .....	44/ "
MITCHAM PEPPERMINT OIL, Double Rectified 47/ "	
MITCHAM WHITE PEPPERMINT OIL,	
Double Rectified Extra .....	58/ "
MITCHAM LAVENDER and CAMOMILE OILS, Extra	
Fine (in same quantities as Peppermint), at Market Price.	

Our Essences are packed in Boxes of—

12, 24, and 50 $\frac{1}{4}$ or $\frac{1}{2}$ lb. Bottles.
6, 12, 18, and 24 1-lb. "
6, 12, 18, and 20 2-lb. "
2, 4, 6, and 12 5-lb. "

And Delivered Free to all parts of the United Kingdom.



**ACID. ACETIC., B.P., ACID. ACETIC. 1·040.** Guaranteed made from Spoa  
**PEROXIDE of HYDROGEN**, for Bleaching Feathers, Hair, Silk, Jute, Ivory, Bone, &c.  
**CRETA PRÆCIP.** Very White, Soft, and Light.  
**PHOSPHORIC ACID, B.P.** strength and concentrated, Pure and Free from Arsenic.  
**LIQ. FERRI PERCHLOR. FORT., B.P.** Free from Arsenic, and Soluble in Spirit.  
**HYPOPHOSPHITE of LIME, SODA, &c. CYANIDE of POTASSIUM.**

Ferri et Ammon. Cit., Ferri et Quiniae Cit., B.P., and other Scale Preparations.

**DUNN & CO.,** Stirling Chemical Works, **WEST HAM, LONDON.**

**GEORGE J. CROWTHER & CO.,** <sup>WOODHOUSE</sup>  
**CHEMICAL WORKS, LEEDS.**

**SPECIALITY—**

**IRON LIQUOR, PURE NITRATE of IRON,**

For Silk Dyers, Cotton Dyers, Burl Dyeing, Paper Makers, &c.

CAN BE SENT IN CASKS TO ANY DISTANCE.

FOR PRICES AND PARTICULARS APPLY AT ABOVE

**ALFRED H. JACKSON & CO.**

(SUCCESSORS TO NICOL & HIGGINBOTTOM.)

MAKERS OF

**ACETIC ACID**

AND

**SUGAR OF LEAD**

(WHITE AND GREY.)

**Sandy Lane Chemical Works,**  
**CLAYTON, MANCHESTER.**

**ROBERT GRAESSER,**

**RUABON.**

MANUFACTURER OF

**CARBOLIC ACID, PICRIC AND AURINE.**

SPECIALITY—

**PURE CARBOLIC CRYSTALS,**

40 DEGREES CENTIGRADE, IN

**DETACHED and ICE CRYSTALS.**

**MORRIS & CALLARD,**

PONTAMMAN CHEMICAL WORKS,

**AMMANFORD, R.S.O., CARMARTHENSHIRE,**

MANUFACTURERS OF

**ACETIC ACID, P.B., ACETIC ACID FORT, SP. GR. 1·040.**

**ACETATE OF SODA,**

**NAPHTHA, SULPHURIC ACID, AND CHARCOAL.**

PRICES AND SAMPLES ON APPLICATION.



**GOLD MEDAL,**  
**INTERNATIONAL INVENTIONS EXHIBITION, LONDON, 1885.**

---

**HIGH TEST**  
**BICARBONATE OF SODA,**  
**SODÆ BICARB. PULV.**

---

**CRYSTAL CARBONATE**

The Best Preventative of Boiler Incrustation, and the **PUREST**  
and **CHEAPEST** form of

**SODA CRYSTALS.**

One Ton of Crystal Carbonate contains as much Alkali as 48 cwts.  
of Soda Crystals.

---

**SEPTEMBER, 1885.**

Price of ONE TON of

**CRYSTAL CARBONATE,**

*F.O.R. WIDNES,*

**£5 14s. OD.**

Price of 48 CWTs. of

**SODA CRYSTAL,**

*F.O.R. WIDNES,*

**£8 8s. OD.**

**GASKELL, DEACON & CO.,**  
**WIDNES, ENGLAND.**



# DUNCAN, FLOCKHART & CO.,

WHOLESALE AND EXPORT DRUGGISTS, EDINBURGH.

## CHLOROFORM

Prepared from Pure and Methylated Spirit.

Put up in all sizes of bottles. A strap with Name and Trade Mark of the Firm is placed over the stopper of each bottle. For Export, in bottles corked and luted (stoppers attached), and in hermetically sealed flasks when required.

*N.B.*—We guarantee our Chloroform prepared from METHYLATED SPIRIT to be PURE CHLOROFORM, answering all the tests of the British Pharmacopœia.

## CHLORIC ETHER.

SP. AMMON. AROMAT. | SP. ÆTHER. NITROS. | SYR. FERRI PHOS. CO. (PARRISH).  
Fluid Extracts, Concentrated Infusions, and all Pharmacopœial Preparations.

MANUFACTURERS OF THE CELEBRATED

## BLUE BLACK WRITING INK & COPYING INK.

SHIPPERS SUPPLIED ON LIBERAL TERMS.

White Gutta Percha for Stopping Teeth, in 6d. and 1s. Boxes.

# BURGESS, WILLOWS & FRANCIS,



## Wholesale & Export Druggists

AND

## MANUFACTURING PHARMACEUTICAL CHEMISTS

WHITE HORSE BUILDINGS,  
101 HIGH HOLBORN, LONDON.

ESTABLISHED 1751.

## DRUGS, CHEMICALS, AND PHARMACEUTICAL PREPARATIONS.

PRICE LISTS ON APPLICATION.

## DRUGS, CHEMICALS, AND PHARMACEUTICAL PREPARATIONS.

# BARRON, SQUIRE & CO.

(LATE DREW. BARRON, & CO.),

## WHOLESALE & EXPORT DRUGGISTS, BUSH LANE, LONDON, E.C.,

MANUFACTURERS OF ALL DESCRIPTIONS OF PHARMACEUTICAL PREPARATIONS,  
Beg to inform Merchants, Shippers, &c., that all Indents entrusted to them will receive careful attention and prompt execution.

Messrs. B., S. & Co. request the attention of their friends and the Trade, at home and abroad, to their having PURCHASED THE BUSINESS of Messrs. JAMES BASS & SONS, Hatton Garden, and with it the various Formulæ from which their Special Preparations have been made, and pledge themselves to supply them in all their integrity.

*Specimens of these Preparations have remained in the Museum of Kew Gardens during 23 years without deterioration.*



CRESCENT



BRAND.

# BICARBONATE OF SODA,

REFINED AND RECRYSTALLIZED.

PURE AND CHEAP.

## ANALYSIS.

Bicarbonate of Soda	...	...	...	...	96.81
Mono Carbonate of Soda	...	...	...	...	2.44
Sulphate of Soda	...	...	...	...	trace
Chloride of Sodium	}	...	...	...	.035
Chloride of Magnesia					
Moisture	...	...	...	...	.82
Insoluble	...	...	...	...	nil

# PURE ALKALI,

GUARANTEED 58 DEGREES,

EQUAL TO 98 PER CENT. OF CARBONATE OF SODA.

Most economical form of Soda for the use of Printers,  
Bleachers, Dyers; Glass, Paper, and Soap Makers.

## BRUNNER, MOND & CO., LIM.,

*Manufacturers of Soda by the Ammonia Process  
(Solvay's Patent),*

### NORTHWICH, CHESHIRE.



# BAISS BROTHERS & CO., WHOLESALE AND EXPORT DRUGGISTS,

AND

## Manufacturing Chemists and Druggists' Sundriesmen.

ESTABLISHED 1833.]

JEWRY STREET, LONDON, E.C.

[ESTABLISHED 1833.

QUALITY GUARANTEED BY  
AFFIXING OUR TRADE MARK  
TO EVERY PACKAGE.

TRADE MARK



QUALITY GUARANTEED BY  
AFFIXING OUR TRADE MARK  
TO EVERY PACKAGE.

FOR EXPORT ONLY.

An exhaustive illustrated Export Prices Current, comprising every requirement of the Chemist and Druggist, will be published on the 1st of January, April, July, and October, and can be had by application (post free) on receipt of trade card. The attention of the trade is especially called to their preparations, including Extracts, Concentrated Decoctions, and Infusions, for which their name is so well established, and are guaranteed to be prepared with the utmost care from the finest drugs, and which will keep in hot climates for any reasonable length of time.

Manufacturers of Fruit Essences, which form a ready means when mixed with Acidulated Simple Syrup, of producing an article that has all the flavour of the freshly pressed fruit, and can thus be used with aerated water as a most refreshing drink in all hot climates.

CORRESPONDENCE IN ALL LANGUAGES.

*Ethers, Alcohols, Liniments, and Tinctures shipped in bond at lowest market prices.*

Patent Medicines and Proprietary Articles at special net prices. Scientific and Philosophical Instruments. Surgical Instruments.

*Indents sent through Merchants should specially bear the name of BAISS BROTHERS & Co., and will be put on very best terms.*

London International and Universal Exhibition, 1884. Gold Medal Awarded for our Pharmaceutical Preparations.  
Calcutta Exhibition, First-class Certificate and Two Prize Medals Awarded for our Pharmaceutical Preparations

# HEWLETT'S MIST. PEPSINÆ CO. C. BISMUTHO.

Highly recommended in various forms of dyspepsia, having a direct action upon the mucous membrane of the stomach and intestines as a sedative. It can be administered with marked and almost instantaneous effect in the irritative form of dyspepsia, more especially when *pyrosis* is a conspicuous symptom, and pain occurs an hour or more after food. In simple neuralgic gastric pain following eating, occurring in feeble subjects, it is especially indicated, and even in *carcinoma* it has been used with great success in alleviating pain and vomiting.

In the dyspepsia of patients dependent upon some organic disease, and where there is a decided loss of nerve power, it is of singular service. Thus, for instance, a person after a meal complains of a peculiar gnawing and emptiness, with slight pain at the epigastrium, evident signs of general relaxation and loss of nerve power, clinical experience has shown that it is of great service as a tonic and stomachic. A portion of its value arises, it may be, from its action upon the spinal motor nerve-centres. Be these things as they may, experience has abundantly demonstrated the value of the compound as a stomachic, antidyspeptic, and tonic, in general functional atony and relaxation, and in the various forms of dyspepsia, constipation, or diarrhoea, connected with atony of the visceral muscular coat, the Mist. Pepsinæ Co. c. Bismutho is a very valuable remedy. In the *exhausting purging of Phthisis*, accompanied with night sweats and restlessness, Dr. MATHEWS, of Nantwich, has used it with marked and appreciable effect.

Price (in England) 10s. 6d. per pound.

Physicians will oblige, when ordering Mist. Pepsinæ Co. c. Bismutho, by writing Mist. Pepsinæ Co. (Hewlett's).

Packed (for Dispensing only) in 10-oz., 22-oz., 40-oz., and 90-oz. Bottles.

LONDON MEDICAL RECORD REPORT.

MISTURA PEPSINÆ COMPOSITA CUM BISMUTHO.

"This combination of Messrs. HEWLETT is one which has been extensively tested, and with good results. It is justly popular in the profession as a very valuable and effective combination. It serves not only to improve appetite, but to lessen the gastric pain and to facilitate difficult and painful digestion, without setting up any evils of its own. It is a very good crutch for persons of weak stomach to lean on."—January 16th, 1881.

**C. J. HEWLETT & SON,**  
MANUFACTURING AND PHARMACEUTICAL CHEMISTS,  
40, 41 & 42 CHARLOTTE STREET, LONDON, E.C. [Established 1832.



# EVANS, SONS & CO.,

Telephone Number—  
558.

LIVERPOOL,

Telegraph Address—  
"Basilio Liverpool."

AND

# EVANS, LESCHER & WEBB,

Telephone Number—  
6,524.

LONDON,

Telegraph Address—  
"Lescher London."

Beg to call the particular attention of the Trade to the Advertisements in November issue of "The Chemist and Druggist," and to the Price Lists of Drugs, Chemicals, and Pharmaceutical Preparations which they publish on the 1st of every month, and which comprises a carefully compiled Market Report of the previous month.

Their Druggists' Sundries List is published about every six months, and a New and Revised Edition has been issued at this date.

Their Illustrated Export Lists contain over 200 pages, and are issued in English in January and July, and in Spanish in April and October, and form a valuable medium for Advertisements.

Their Laboratories and Drug Mills are situated in Fleet Street, Liverpool, and are of a most complete character, and are under the management of Mr. Michael Conroy, F.C.S.

**EVANS, SONS & CO.,**

LIVERPOOL.

**EVANS, LESCHER & WEBB,**

LONDON.

EVANS, SONS & MASON (LIMITED),  
MONTREAL.



# T. & H. SMITH & CO.,

CHEMICAL MANUFACTURERS,

## OFFER

**MORPHIÆ HYDROCHLOR.**

In powder and crystals.

**MORPHIÆ ACETAS**

**MORPHIÆ TARTRAS**

Introduced by them and specially prepared  
for hypodermic treatment.

**CODEIA**

**APOMORPHIÆ MUR.**

**PODOPHYLLIN**

**JALAPINE**

**SALICINE**

**CHLOROFORM PURE**

**CHLOROFORM METH.**

Their brand has been for many years known to  
the Wholesale Trade as absolutely pure.

**ALOIN**

**RESINA SCAMMONII, B.P.**

**GINGERINE**

**CAPSICINE**

**CAMPHOR MONOBROM.**

**ALKALOIDS, &c., &c.**

EDINBURGH Address—

21 DUKE STREET.

LONDON Address—

12 WORSHIP STREET, E.C.

SPECIALITIES—

ACIDS: Benzoic, Gallic  
**PYROGALLIC**, Tannic.  
Iodine, Iodoform, Iodides of Alkalies.

**DR. HEINRICH BYK, BERLIN.**

Bromine, Bromides of Alkalies. Chloralhydrate,  
Silver Nitrate, Salts of Gold, Oxalate  
of Potash, Pyroxylin.

Correspondence with the  
Colonies invited.

Sole Wholesale Agents,  
BEHNSTEIN & VOGT,  
LONDON, E.C.

28 Jewry Street,

**METHYLENE.**

Discovered to be a general Anæsthetic by  
Dr. RICHARDSON in 1867.

1-lb. Bottles, 16s.; 8-oz., 8s. 6d.; 4-oz., 4s. 6d.; 2-oz., 2s. 6d.

**COMPOUND ANÆSTHETIC ETHER.**  
For producing Local Anæsthesia.  
In 4-oz., 10-oz., and 20-oz. Stoppered Bottles, 2s., 4s., and 7s.

**OZONIC ETHER.**  
4-oz. and 16-oz. Stoppered Bottles, 3s. 6d. and 11s.

**PEROXIDE of HYDROGEN.**  
First introduced as a Medicine by Dr. RICHARDSON.

**ETHYLATE of SODIUM**  
(Dr. RICHARDSON'S Formula), for removing Nævi, &c. In 4-oz.  
and 1-oz. Bottles, with elongated Stoppers for applying the  
Caustic, 2s. 6d. and 4s.

**STYPTIC COLLOID.**  
For promoting the Healing of Wounds by the first intention.  
In 2-oz. and 4-oz. Bottles, with brush, 2s. 6d.  
and 4s. 6d.; 16-oz., 12s.

**CHARCOAL CAPSULES,**  
Containing pure Vegetable Ivory  
Charcoal. In Boxes,  
2s. 6d. each.

ROBBINS & CO. OXFORD ST. 147

**SYMES & CO.,**

Pharmaceutical Chemists,  
**LIVERPOOL,**  
**EXPORT DRUG MERCHANTS,**  
IMPORTERS OF  
**BRAZILIAN DRUGS.**  
AMERICAN & CONTINENTAL SPECIALITIES.  
**MENTHOL.**

MANUFACTURERS OF

**OL. LAVAND. RECT.**

Now largely replacing the Mitcham Oil. 21/- lb.

**LAC BISMUTHI**

LAC BISMUTHI ET CERIL.

HYDROBROMIC SYRUP OF HYPOPHOSPHITES, &c.

London Depot—Snow Hill Buildings, E.C.



Telegraphic Address,  
"WHIFFEN, LONDON."

**GOLD MEDALS.**

Telegraphic Address,  
"WHIFFEN, LONDON."



SYDNEY, 1879.



CALCUTTA, 1884.



MELBOURNE, 1880.

# THOMAS WHIFFEN, BATTERSEA, LONDON,

*Manufacturer of*

## QUININE,

WHITE AND UNBLEACHED SULPHATES. ALSO BISULPHATE,  
MURIATE, BROMIDE, PHOSPHATE, CITRATE, SALICYLATE,  
VALERIANATE CRYSTALS, ETC., ETC.

**QUINIDINE, CINCHONIDINE, CINCHONINE, ETC.**

### QUINETUM.

The Alkaloids of India, Cinchona Succirubra Bark, and

**QUINETUM SULPHATES.**

**LIQUID EXTRACT OF CINCHONA, P.B. 1885,**

ALSO

**LIQUID EXTRACT OF YELLOW CINCHONA, P.B. 1867.**

**SALICINE.**

**STRYCHNINE, "HULLE'S."**

The Advertiser is the Proprietor and Inventor of this well-known Brand.

Address for Telegrams, "WHIFFEN LONDON."



**PERSONAL MANAGEMENT IN LONDON.  
PERSONAL REPRESENTATION IN THE COUNTRY.**

GEORGE WALKER, late of the Firm of Wyleys & Co.; CHARLES TROKE, of the late Firm of Gabriel & Troke  
TRADING AS

**WALKER, TROKE & CO.,**  
WHOLESALE AND  
**EXPORT DRUGGISTS,**  
82 CITY ROAD, LONDON, E.C.,  
MAKERS OF

LOTIO ANTISEPTICA—A Soluble Alcoholic Solution of Coal Tar.

ACID GLYCERINE OF PEPSINE PORCI—Agreeable in Taste and Flavour, and of definite Strength.

COD LIVER OIL with Hypophosphite of Lime—An inseparable Emulsion.

AMMONIÆ MONOCARB—Very Pungent and Lasting, with a fine Aroma.

CONCENTRATED WATERS—1 to 40.

Pharmaceutical Preparations of every Description.

Original Makers of GELATINE COATED HORSE, DOG, AND OSTRICH BALLS.

**EXPORT ORDERS RECEIVE CAREFUL ATTENTION.**  
SPECIAL QUOTATIONS TO LARGE BUYERS.

**TOWLE'S CHLORODYNE**

The Original Preparation, as approved by the Medical Profession on account of its known composition and uniform strength.

Retail at 13½d., 2s. 9d., 4s. 6d., and 11s.

We beg to inform our numerous customers, and the Trade generally, that we are **WITHDRAWING THE 4-OZ. AND 10-OZ. DISPENSING** sizes, and, instead, are putting up **AN 11s. RETAIL SIZE**. The wholesale price of the 4s. 6d. and 11s. will be at the same rate per oz. as the old 4-oz. and 10-oz. We shall still continue the undermentioned as usual.

**LIQ. CHLORODYNE**

As originally introduced by A. P. Towle, and free from stamp duty for dispensing. 4 oz., ½ lb., 1 lb.

Also in quantities of 6 lbs. and upwards at special quotations.

**TOWLE'S CHLORODYNE LOZENGES AND JUJUBES,**

In 1, 2, and 4 lb. bottles, and 6d. and 1s. boxes. Foil lined, and neatly got up for the counter. Quantities of 7 lbs. of Lozenges and upwards stamped with chemist's own name free of charge.

**TOWLE'S (1s. 1½d. and 2s. 9d. per Box) ANTIBILIOUS PILLS.**

SOLE PROPRIETORS OF

ESTABLISHED **THORNTON'S PREPARATIONS FOR THE HAIR.** 50 YEARS.

**THORNTON'S TOILET CREAM**, 1s., 1s. 6d., and 2s. 6d. per Pot.

**THORNTON'S LOTION AND AMBOLINE**, each 2s. 6d. per Bottle.

**A. P. TOWLE & SON, Chlorodyne Manufacturers,**

**75 BACK PICCADILLY, MANCHESTER.**

Show Cards and Bills with Name on application, with instructions for forwarding.



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# WYLEYS & CO.,

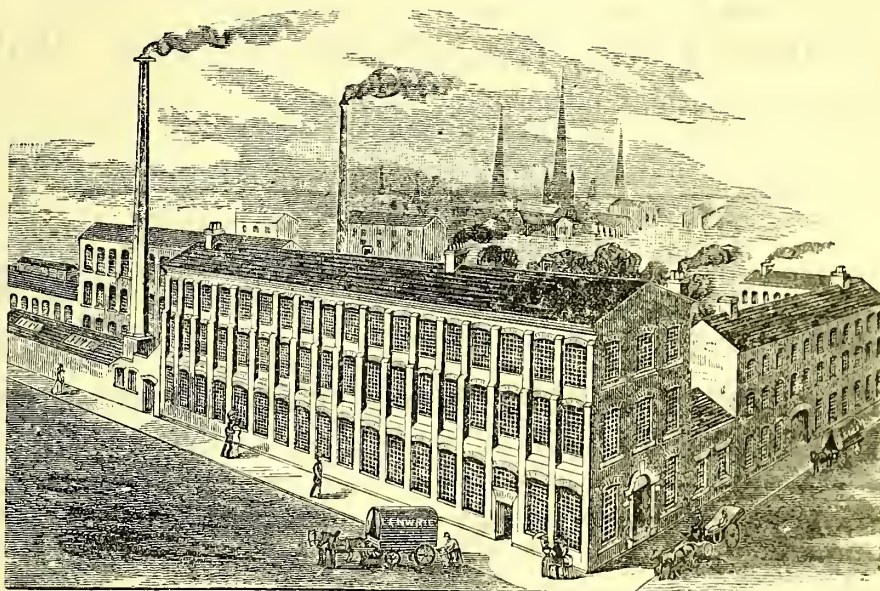
(Partners:—F. WYLEY, M.R.C.S., ENGLAND, L.S.A.—W. F. WYLEY, F.C.S.)

## COVENTRY,

And 1a BURY STREET, ST. MARY AXE, LONDON, E.C.

ESTABLISHED 1790.

WHOLESALE & EXPORT DRUGGISTS & DRUG GRINDERS.



VIEW OF NEW PREMISES, 1884.

### MANUFACTURERS OF CHEMICALS & PHARMACEUTICAL PREPARATIONS.

#### \* GELATINE COATED OVAL PILLS.

The only oval gelatine coated pills of English manufacture in the market.

#### \* PEARL COATED PILLS. Special and extensive list on application.

\* For Prices and other particulars, see Special Advertisement, page 129.

#### FLUID EXTRACTS.

#### SUBLIMATED SERUM GAUZE.

#### EXTRACT HENBANE (English) &c., &c.

#### ESSENCES FOR AERATED WATERS.

#### CONCENTRATED WATERS.

#### CHINOQUININE.

#### CHEKAN.

We were the first importers of this drug. Our Liquid Extract is the original preparation.

#### OLEATES.

#### MEDICATED ABSORBENT

WOOL (Various kinds).

#### EXPRESSED JUICES (English).

#### POWDERED DRUGS.

Special attention paid to powders of guaranteed purity, which may now be had in sealed 1-lb. tins.

#### SCALE PREPARATIONS.

#### HYPODERMIC ERGOTIN

#### TUBES.

By their use a fresh solution of Ergotin can be at any time obtained.

#### FRICTION CAKES (Various).

We were the first to introduce these liniments in the solid form.

### EXPORT DEPARTMENT.

We are prepared to execute orders for Export, giving every attention to packing and the requirements of the Market for which goods are intended. Having *direct representatives* in Rio Janeiro and Valparaiso, we are in *spec ally* good position with reference to these markets.

SPANISH PRICE LISTS PUBLISHED QUARTERLY.

We shall be happy to forward English and Spanish Price Lists, Book of Order Forms, and Pill List, to any Chemist in the World on receipt of Business Card.



**GOLD MEDALS—DUBLIN, 1882; BOSTON, 1883;  
LONDON, (INTERNATIONAL EXHIBITION) 1884.**

# SIR JAMES MURRAY'S PURE FLUID MAGNESIA.

*The ORIGINAL Article, as prepared by the Inventor, Sir James Murray, M.D.*

For over 60 years in use as an excellent remedy in cases of

**ACIDITY, INDIGESTION, HEARTBURN, GRAVEL, AND GOUT.**

Sold by all respectable Chemists, in LARGE-SIZED Bottles (the 1s. size containing nearly

*Double the quantity usually sold at that price), at 1/, 2/6, and 3/6 each.*

CAUTION.—Observe that the Signature of the Inventor is on every label.

## SIR JAMES MURRAY'S FLUID CAMPHOR

Is a valuable remedy in cases of SLEEPLESSNESS and WEAK NERVES. Bottles, 1/ and 2/ each.

SIR JAMES MURRAY & SON, Chemical Works, Temple Street, Dublin.  
BARCLAY & SONS, 95 Farringdon Street, London.

## IMPORTANT NOTICE.

**£500 Reward. PIRACY. £500 Reward.**

*The above reward will be paid by the Proprietors of “**LIEBIG'S CHEMICAL FOOD**,” or Wine of Phosphates, to any person or persons who shall give such information as will lead to the discovery and conviction of any one making or offering for sale spurious or forged imitations of their proprietary article.*

TO OBVIATE FURTHER PIRACY, the following alterations have been made:—

The words “**LIEBIG'S CHEMICAL FOOD**” are now engraved on the Government Stamps, the words in water mark on the Labels, as well as being moulded on the Bottles.

The Proprietors therefore request all Chemists and Patent Medicine Vendors to RETURN for exchange ANY STOCK they may have of “**LIEBIG'S CHEMICAL FOOD**,” or Wine of Phosphates, to either their Wholesale House or direct to them,

**12 York Buildings, Adelphi, London, W.C.**

*In all our Advertisements from this date, the attention of the Public will be called to these alterations, and they will be requested only to purchase such Bottles as have the Name Engraved on the Government Stamps, and the Name in Water Mark on the Labels.*



GOLD MEDAL, International Health Exhibition, London.

# BENGER'S PREPARATIONS



OF THE

## Natural Digestive Principles

AND

## SPECIAL FOODS FOR CHILDREN & INVALIDS

**THE LANCET**, March 25, 1882:—"Mr. Benger's admirable preparations."

**THE MEDICAL PRESS**, June 13, 1883, says:—"Few modern improvements in Pharmacy have done so much as Benger's Preparations to assist the physician in his treatment of the sick."

**THE PRACTITIONER**, February, 1883, says:—"Deserving of the highest praise, and only require to be made known to the profession to insure their extensive employment."

**THE MEDICAL TIMES & GAZETTE**, September 8, 1883, says:—"Benger's Preparations have deservedly a very high reputation, and are all largely used."

THEY CONSIST OF—

### 1. Liquor Pancreaticus (Benger),

Containing all the digestive principles of the fresh pancreas. Used to prepare peptonised or partially digested food (no apparatus beyond a jug and a saucepan required), and also medicinally as a digestive.

In 4, 8, and 16 ounce Bottles, to retail at 2s. 6d., 4s. 6d., and 8s. 6d.

### 2. Liquor Pepticus (Benger),

An exceedingly active Fluid Pepsine. Dose—One or two teaspoonfuls with meals.

"The Liquor Pepticus prepared by Mr. Benger is a digestive agent of extraordinary power."—Dr. WM. ROBERTS, F.R.S., at Northwich Meeting of British Medical Association.

In 4, 8, and 16 ounce Bottles, to retail at 3s., 5s. 6d., and 10s. 6d.

### 3. Benger's Peptonised Beef Jelly,

A DELICIOUS QUICK RESTORATIVE—WILL KEEP IN ANY CLIMATE.

A concentrated partially digested and solidified beef tea, of delicate flavour. Unlike the various Extracts and Essences of Meat, it contains much of the fibrin or flesh-forming element of the beef in solution. Tins, 2s.

### 4. Benger's Self-Digestive Food

For Infants, Children, and Invalids. Containing the natural digestive principles of the pancreas; when mixed with warm milk a process equivalent to partial digestion takes place, by which both the food and milk are adapted for rapid absorption.

In no other food has this result been obtained. It can therefore be taken with comfort when all others disagree.

Tins, 1s. 6d., 2s. 6d., and 5s.

DESCRIPTIVE CIRCULARS AND SHOW CARDS ON APPLICATION.

Benger's Preparations may be obtained through BARCLAY, EDWARDS, SANGER, SUTTON, NEWBERY, and all the leading Wholesale Houses, or of the Manufacturers—

**MOTTERSHEAD & CO. (S. PAINE & F. B. BENGER),**

PHARMACEUTICAL CHEMISTS,

**MANCHESTER.**



# PEPTOLEINE.

The LANCET says:—"PEPTOLEINE (Burgoyne, Burbidges & Co.), 16 Coleman Street.—This preparation, introduced by Dr. Peter Gowan, is intended for use in consumption and other wasting diseases. Few patients would find difficulty in taking it. Peptoleine can hardly fail to be popular."

The BRITISH MEDICAL JOURNAL says:—"PEPTOLEINE.—Messrs. Burgoyne, Burbidges & Co. have introduced a very elegant emulsion of Cod Liver Oil. Nothing is more desirable in pharmacy than a thoroughly satisfactory preparation for the administration of Cod Liver Oil in a perfectly acceptable form; and towards this desideratum Peptoleine is a decided step forward."

The MEDICAL RECORD says:—"PEPTOLEINE has been found, and is likely to be found, less liable to disturb digestion than pure Cod Liver Oil, and, in the many cases in which Cod Liver Oil is found to be unpleasant in use or distasteful to the patient, Peptoleine claims a trial."

**BURGOYNE, BURBIDGES, CYRIAX & FARRIES,** Wholesale Druggists & Manufacturing Chemists, LONDON.

Export Telegraphic Address, "CYRFXR LONDON."  
Home " " "CYRIAX LONDON."

16 COLEMAN STREET,  
[See pages 17, 28, 76, 107, 152, 154, 158.]

## SPECIAL NOTICE.

# TIKHEEL.

## NEW 1/1½ SIZE.

The Proprietors of Tikheel have now definitely arranged to introduce, on 1st November next, a small bottle of this popular remedy in response to a widespread demand.

Show Cards and Handbills announcing this fact will be forwarded to any of the wholesale patent medicine houses on receipt of a postcard from any druggist in the United Kingdom. The half-crown size will be continued as heretofore.

Price 10/6 & 24/- per dozen, subject to usual patent medicine discount.

PREPARED FOR THE PROPRIETORS BY

**CLARKE, BLEASDALE, BELL & CO.,**  
YORK, ENGLAND.

# KURARTZ.

THE DOCTOR'S CURE.

AN INFALLIBLE REMEDY FOR

**COUGHS, COLDS, BRONCHITIS,**  
ETC., ETC.

2s. 6d. PER BOTTLE.

**R. HENRY,**

6 PHOENIX STREET, MANCHESTER.

# MENTHOL CONES,

WARRANTED PURE.

3/6, 5/, 6/, and 8/ per dozen. INSIST ON HAVING CHRISTY'S BRAND, as they cost least and are best put up. Direct Orders, subject 5 per cent. for Cash.

**THOMAS CHRISTY & CO., 155 FENCHURCH STREET, LONDON,**  
Introducers of New Drugs.

Established 1846. Protected by Royal Letters Patent. Registered.

# THE MANCHESTER COUGH CURE!

LOWE'S CONSUMPTIVE & ASTHMATIC

# COUGH BALSAM

(THE LATE DR. TURNER'S FORMULA),

For Consumptive and Asthmatic Coughs, Colds, Bronchitis, Bronchial Affections, Palpitation of the Heart, Hoarseness, Tightness, Wheezing, Difficulty of Breathing, &c.

Sold in Bottles, 1s. 1½d., 2s. 9d., and 4s. 6d. each.

To be obtained from most Chemists in Town and Country. If any difficulty, the Proprietor, W. LOWE, Chemist, 21 ROSAMOND STREET WEST, and 130 MOSS LANE EAST, MANCHESTER, will send, post free for 14 stamps, to any address in the United Kingdom.

Wholesale by the following Agents:—MANCHESTER—James Woolley, Sons & Co.; Oldfield, Pattinson (late W. Mather); Thomas Shaw & Co. (late Reddish & Co.); LIVERPOOL—Evans, Sons & Co.; LONDON—Bircay & Sons, 95 Farringdon Street, Ludgate Circus; John Sanger & Sons, 439 Oxford Street; John Sutton & Co., 10 Bow Churchyard; W. Edwards & Co., Queen Victoria St.; Thompson, Millard & Co., Curtain Road, E.C.

# OILICURE

IS BEST IN HOT CLIMATES

For Rheumatism, Neuralgia, Headache, &c.

A Liquid Preparation, superior to Menthol Cones, not liable to evaporate. 8/, 20/, and 40/ per dozen.



# MENTHOL CONES—A1 BRAND.



No. 1. -/6 Glass, 3/8 per doz. No. 2. -/6 Willow Wood, 3/6 per doz. No. 4. 1/- Menthol on Wood Mount, in Screw-capped Glass Bottle, 6/9 per doz. No. 5. 1/- Bullet Shape Cone, in Screw-capped Bottle, 6/9 per doz. No. 6. 1/- Boxwood, Pedestal Shape, 5/3 per doz. No. 7. 1/- Boxwood, Barrel Shape, 6/3 per doz. No. 8. 1/- Boxwood, Acorn Shape, 6/3 per doz.

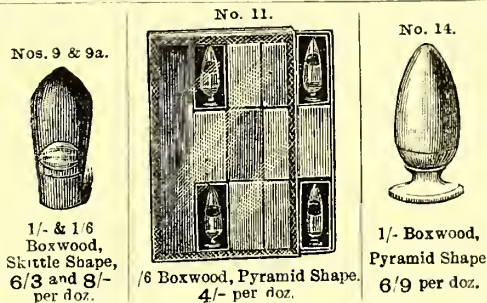
No. 12, Polished Sycamore,  
3 6 per doz.

ALL SHAPES SENT OUT  
IN SHOW BOXES.

SPECIAL TERMS TO SHIPPERS  
AND LARGE BUYERS.

GUARANTEED PURE JAPAN MENTHOL.

No Stamp required.



No. 13, Vegetable Ivory,  
Acorn Shape,  
6/9 per doz.

ALL BOXWOOD PATTERNS  
HAVE SCREW TOPS.

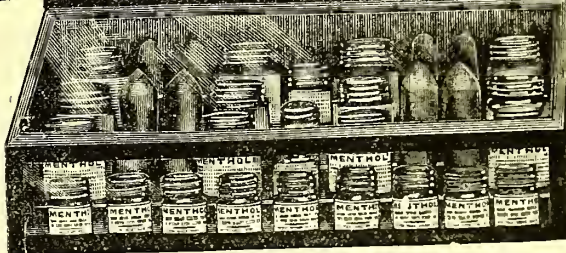
5 PER CENT. DISCOUNT FOR  
CASH WITH ORDER, IF SENT  
DIRECT.



-/6 Cardboard, pocketable, pretty,  
saleable, 3/4 per doz.

The winter season having  
well commenced, Menthol  
will be in great demand;  
so have a show case, which  
is bound to increase the  
sale.

Write for detailed Price List, sent free by  
post. In it you will find particulars of  
Handsome Glass-fronted Show Case (as  
diagram below) given away to purchasers of  
3 dozen.



-/6, 12 on a card, 3/6 per doz.

The Show Case is 11 ins. long  
by 5½ ins. deep, and the lid lifts  
so that the Goods can be sold  
from it, making it both a useful  
and attractive addition to a  
Chemist's counter.

All shapes and sizes can be procured through any Wholesale House, or direct from

**J. G. SHIRLEY, PROPRIETOR A1 BRAND MENTHOL,**  
**30 PATERNOSTER SQUARE, LONDON, E.C.**

Telegraphic Address—"MENTHOL LONDON."



Prize Medals were Awarded to us at the Great International Exhibitions 1851, and 1862, for the General Excellence of our Goods. ESTABLISHED UPWARDS OF A CENTURY.

# BUTLER, McCULLOCH & CO.,

## COVENT GARDEN MARKET, LONDON.



WHOLESALE IMPORTERS AND EXPORTERS OF ALL KINDS OF  
**MEDICINAL AND CULINARY HERBS, ROOTS, BARKS, SEEDS, AND  
 PREPARATIONS. DISTILLERS OF PERFUMED & MEDICINAL  
 WATERS. IMPORTERS OF LEECHES.**

All Powdered and Crushed Articles are prepared in London. Absolute Purity is thus assured.

THE GREATEST CARE AND JUDGMENT USED IN THE SELECTION AND PACKING OF INDENTS.

**SPECIALITIES.**—MEDICINAL HERBS PACKED IN PATENT CARDBOARD BOXES,  
*Which can be opened for examination of contents and closed up again without detriment to the package.*  
 PRICE LISTS, SAMPLES, AND SPECIAL QUOTATIONS ON APPLICATION.

# COMPOSITION ESSENCE.



This **Genuine Essence of Composition** will be found superior, both in **Medicinal Properties** and **Aromatic Flavour**, to the Article generally sold.

Owing to the very great and increasing demand, we have been obliged to considerably enlarge our apparatus for its manufacture.

TRADE PRICE—

Per lb., 1/3; Winchester quart, 1/1 lb.; per gal. (10 lbs.) 1/- lb.  
 5% DISCOUNT.



BY APPOINTMENT.

**POTTER & CLARKE,** Wholesale & Export Botanic Druggists, **LONDON, S.E.**  
**75 WESTON STREET,**

Price Lists on application.

Telegraphic address. "Horehound London."

# COMPOSITION ESSENCE.

**"RAIMES & CO."**

**VERY SUPERIOR IN AROMA AND STRENGTH TO THE ARTICLE USUALLY SOLD.**

The following favourable opinions are from those who have tried it:—

Mr. F. JOHNSON, Chemist, Barnsley: "Gives every satisfaction to my customers."

Mr. BASKER, Chemist, Sheffield: "Excellent quality, and well liked by my customers."

Messrs. NEEDHAM BROS., Chemists, Huddersfield: "Our customers speak very highly of it."

Mr. S——, Chemist, M——: "Gives great satisfaction. I consider it is a very excellent preparation."

1/2 per lb. in W. Quarts, 5 per cent. discount; 11d. per lb. net for 1 cwt.

**RAIMES & CO., Wholesale Druggists, YORK, and Edinburgh.**

## "MALMERFINE."

**JAMES & CO., 16 Moorfields, LIVERPOOL,**

Call the attention of the Trade to their preparation "MALMERFINE." It is an undoubted cure for Sea Sickness, giving instant relief in all cases. A Surgeon of Mail Steamers (Walter Dunn, B.A., M.R.C.S., Eng.; L.S.A. Lond., &c.) writes that "It relieves all cases and cures most."

Being an artificial Gastric Juice, combined with Stomachic Stimulants, it is also curative in Indigestion and all stomach complaints. Price, 2s. 9d. per bottle. Trade price, 23s. per dozen, from Newbery's, Burgoyne's, Goodall, Backhouse & Co., and most Wholesale Houses. The Proprietors will give special terms to first-class Chemists in seaports who will undertake to push it.

## THE "MALMERFINE" MAGNETIC BELT.

Price One Sovereign, will in nearly all cases prevent sea sickness. Chemists obtaining customers for it are allowed a very handsome commission for their recommendation, and may rely on the Belt giving satisfaction, as it combines all the external means which have been found successful in preventing sea sickness, viz., warmth, magnetism, mechanical pressure on the muscles affected, and absorption of medicinal agents through the pores of the skin.

Send for particulars.

## LIEBIG'S "IODIZED" COD LIVER OIL, ALMOST TASTELESS.

The powerful curative properties of this Oil have been fully demonstrated by the most eminent Physicians in Europe. It is well put up in Cardboard Boxes, with tasteful, attractive Wrapper, suitable for first-class Shop Window or Counter-case.

**Sells:—Imperial Pints, 4s. 6d., Half-pints, 2s. 6d.**  
 PRICE DISPLAYED ON BOTTLE, LABEL, AND WRAPPER.

The Trade Mark, "IODIZED COD LIVER OIL," is moulded in the glass of every bottle.

SHOW CARDS AND COUNTER BILLS FORWARDED FREE.

Sole Proprietors:

**J. E. BEESLEY & SONS,**  
**17 Redcross St., Borough, London, S.E.**

And through all Wholesale Houses.



# CONCENTRATED PRODUCE CO., L<sup>td.</sup>,

10 CAMOMILE STREET, LONDON, E.C.

# HOPEINE

The active principle of Hops prepared by patented process.

The pure crystallized Alkaloids, Hopeine, Morphine, Quinine, without any doubt represent the three most important medical discoveries of this century.—Hopeine is the active principle of Hops prepared from American wild Hops, which, however, contain only an exceedingly small quantity of this valuable alkaloid. To a certain degree Hopeine seems to unite the qualities of Morphine and Quinine; certainly it possesses the properties of Opiates without their objections; it produces neither headache nor sickness, and has no sinister effect on the digestive functions. Hopeine possesses antispasmodic, anodyne, sedative, and astringent properties in a remarkable degree.

W. WILLIAMSON, M.D., M.A.

*Vide* Am. Med. Journal, Deutsche Mediz. Zeitung, Pharmaceutische Zeitung, Mediz. Centralzeitung, Aerztliches Vereinsblatt, Lancet, etc., etc.

**HOPEINE** is registered under the Trade Marks Act, and protected by the green label of the Concentrated Produce Company, Limited.

**HOPEINE** is allowed to rank with Quinine and Morphine as one of the three greatest medical discoveries of the present century.

**HOPEINE** is the active narcotic principle of Hops; its preventive and curative effects in certain diseases are hitherto unexampled in the history of Medicine.

**HOPEINE** possesses the properties of the opiates without their objections, entailing no injurious effects on the digestive functions and on the gastric system, producing no headache or other unpleasant symptoms whatever.

**HOPEINE** is employed by the most eminent physicians in England and on the European and American Continent.

**HOPEINE** is unsurpassed as a remedy against *Insomnia*.—*Dose for an Adult*: 15 to 45 drops before going to bed.—Hopeine quiets the nervous system and produces a refreshing sleep without any of the bad symptoms generally produced by other narcotics. Hopeine should be taken two to three hours after supper in a glass of port or sherry. The supper should consist only of meat and wine. No potatoes or vegetables and no beer should be consumed at supper in aggravated cases of *Insomnia*.

*We shall on principle abstain from the publication of any Testimonials or reports, as everybody at the first trial will be able to state the unparalleled value of HOPEINE in the above-mentioned diseases.*

**HOPEINE** is used—

As a **Sedative** in Nervous Diseases and Affections of the Brain, in Bronchitis, Cough, Croup, Laryngitis, etc.

*Dose for an adult*: 8 to 15 to 30 drops every four hours.

As an **Anodyne** in Rheumatism, Neuralgia, Hemicrania, Colic, etc.

*Dose for an Adult*: 10 to 20 to 30 drops every three or four hours.

As an **Antispasmodic** in Convulsive Affections, Epilepsy, Spasmodic Asthma, Hooping Cough, etc.

*Dose for an adult*: 12 to 22 to 35 drops every four hours.

As an **Astringent** in Diarrhoea, Dysentery, and Inflammation of Intestines in general.

*Dose for an adult*: 10 to 20 to 35 drops every three to four hours.

As a **Diaphoretic** in Colds, Fevers, and Ague.

*Dose for an adult*: 10 to 20 to 30 drops.

**HOPEINE** is the most important remedy in the curative treatment of Morphinism and Morphia habit. Hopeine is to be gradually substituted for Morphia.

**HOPEINE** should be used only internally, and, if possible, in a glass of strong sherry, port, or in pure Cognac.

If, in consequence of prolonged taking of Hopeine, an aperient should be required, take Aloe.

The word “**HOPEINE**” being registered under the Trade Marks Act, the **CONCENTRATED PRODUCE COMPANY, LIMITED**, have the sole right to use it. The method of preparing the Alkaloid Hopeine being also patented, the Trade are respectfully cautioned against any infringements of the rights of the C. Pr. Co., Ltd.

For Samples, apply to the

**CONCENTRATED PRODUCE COMPANY, LIMITED,**  
10 CAMOMILE STREET.

FOR TRADE PRICES APPLY TO WHOLESALE HOUSES.



Trade Notice.]



[Trade Notice.

# ATKINSON & BARKER'S ROYAL INFANTS' PRESERVATIVE.

Established by 90 years' experience as a safe and effective Medicine.

Sold universally by Chemists and Patent Medicine Dealers.  
WHOLESALE AND EXPORT ORDERS SUPPLIED FROM THE MANUFACTORY—  
11 RUSSELL STREET, DOWNING STREET, MANCHESTER.  
SHOW CARDS AND BILLS ON APPLICATION

## Mariazell stomach-drops.

An excellent remedy for all stomachic complaints.



Indispensable in cases of loss of appetite, weakness of the stomach, bad breath, flatulency, nausea, colic, cold in the stomach, heartburn, formation of sand and gravel, excess of mucus, jaundice, distaste, vomiting, sick-headache, spasms, constipation, over eating and drinking, worms, hypochondriasis, liver complaint and hemorrhoids.

Price per bottle, including directions for use, 1s. 1½d. and 2s. 3d. Central depôt:

Carl Brady, Chemist, Krenzier, Moravia (Austria).

Sole consignee for England:

S. Morris, London, W. 33 North Audley Street, Grosvenor Square.

To be had retail of all Chemists and all Wholesale Houses in London.

"FOR THE BLOOD IS THE LIFE."

# CLARKE'S WORLD FAMED BLOOD MIXTURE, The Great BLOOD PURIFIER and RESTORER.

(Registered Trade Mark—"BLOOD MIXTURE.")

The Celebrated CURE FOR Scrofula, Scurvy, Blood and Skin Diseases, and Sores of all kinds.

Wholesale of all the Wholesale Houses. Net Wholesale Price, 23/- per doz. Usual terms.

Sole Proprietors, THE LINCOLN & MIDLAND COUNTIES' DRUG COMPANY, LINCOLN.

Counter Bills and Posters, with Name and Address, also Show Cards, on application. Printed matter supplied in any Language for Foreign Agents.

CAUTION.—The Proprietors will take immediate proceedings against all persons pirating their Trade Mark, "Blood Mixture," Labels, Wrappers, &c. or Advertisements, or in any way infringing their rights.

## DENOVAL'S MEDICINAL CAPSULES ARE THE BEST AND CHEAPEST.

Attention is called to the following articles:—

MEDICINAL  
CAPSULES.

	Trade Price.	Retail
Peruvian Mixture Capsules.....	10/ & 7/6	3/ & 2/
Matteo Oil and Copaiba do.....	11/	2/6
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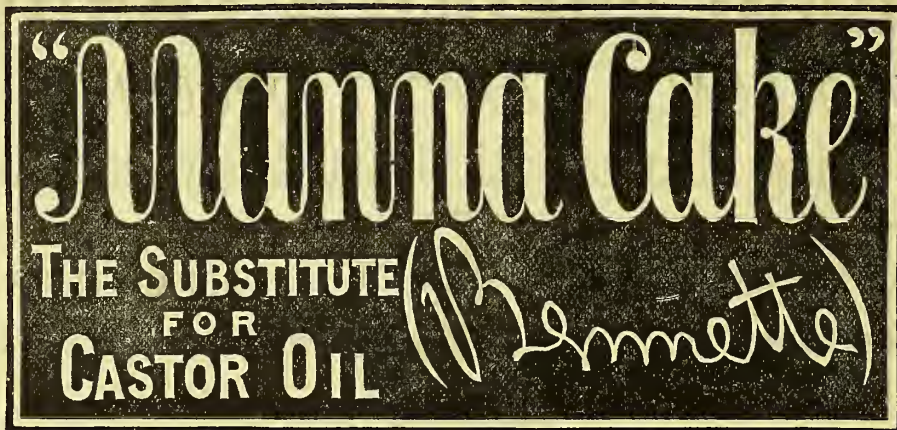
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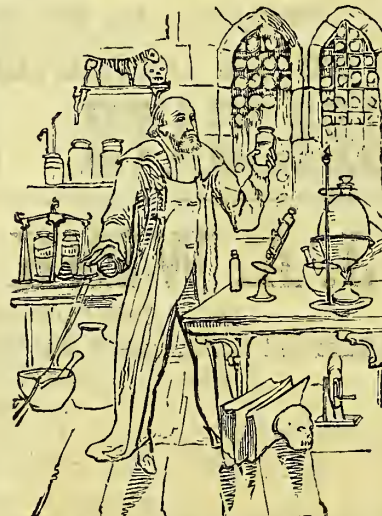
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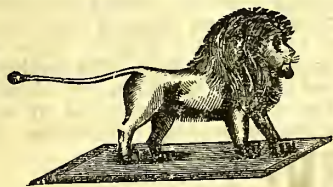
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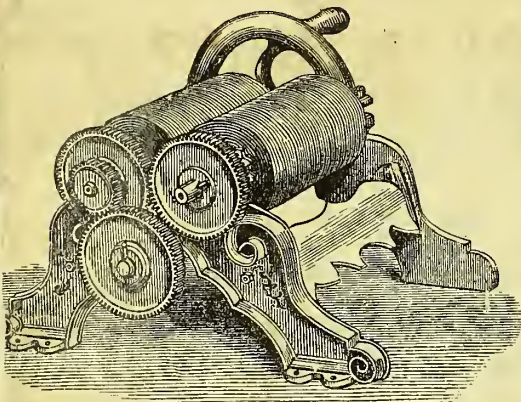
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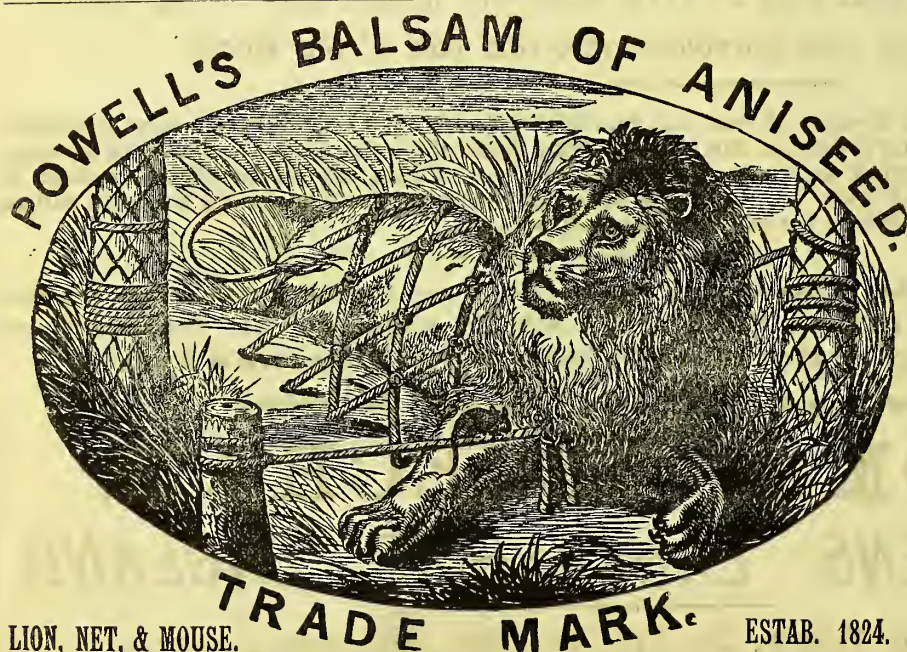
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**PULMONARY**

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# Dr. J. COLLIS BROWNE'S CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

## IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD,  
and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that 'Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

ORIGINAL AND

## FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

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Allen, Hanbury & Co.,	"	Gale & Co.,	London	Newbery & Sons,	London
Baiss Brothers,	"	Giles & Son,	Clifton	Oldham, G., & Co.,	Dublin
Banks & Richards,	Birmingham	Goulding, Messrs.	Cork	Parsons & Richardson,	Leicester
Barron, Harvey & Co.,	London	Gratton & Co.,	Belfast	Peake, Allen & Co.,	Dublin
Bell, John, & Co.,	"	Grimwade, Ridley,	London	Raines & Co.,	Liverpool
Bourne & Taylor,	"	Grindley & Son,	Chester	Raines & Co.,	York
Corbyn & Co.,	"	Hearon, Squire & Francis,	London	Raines, Blanchards & Co.,	Edinburgh
Cox & Gould,	"	Hodgkinson, Tonge & Stead,	"	Sang & Barker,	"
Curling & Co.,	"	Hopkins & Williams,	"	Sanger, J., & Sons,	London
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And is sold in bottles, authenticated by a Government Stamp bearing their Names and Trade Mark, "Henry's Calcined Magnesia."  
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(PREPARED IN VACUO).

Certified by Dr. De Vry to contain 5 per cent. Cinchona Alkaloids.

The value of this preparation, originated by Dr. De Vry in 1878, has been proved in Continental practice and in the Government Hospitals of India. As manufactured by us, under Dr. De Vry's advice, it contains the prescribed percentage of Cinchona Alkaloids, together with their collateral principles, absolutely unchanged. It retains all the characteristics of the freshly-recovered percolate, and is perfectly soluble. We invite comparison, and will supply samples on application.

**DE VRY'S CINCHONA COMPANY, 2 FISHER STREET, RED LION SQUARE, W.C.**

Consulting Quinologist, Dr. J. E. DE VRY, C.I.E., K.N.L., &c., &c., The Hague.

\*\* Prescribers should specify "Ext. Cinchonæ Liq. (DE VRY)."

## COCAINE HYDROCHLORATE

As original makers in this country of Cocaine salts, we beg our friends to note that we are prepared to meet any legitimate competition, and to supply a product of the highest purity and activity as heretofore. We have still further reduced our price, and invite enquiries for quotations.

**TANNER & CO., Manufacturing Chemists,**  
TOTTENHAM, LONDON.



19/- per dozen  
15-grain Tubes  
(guaranteed);  
Postage, 2d.

The best in the market. Immense quantities sold. Exported  
to all parts of the World.

**LOUIS ROWLAND (Refiner),**  
59 South John St., LIVERPOOL.

## W. R. EARP & CO.,

MANUFACTURING & ANALYTICAL  
**CHEMISTS,**  
AND ASSAYERS OF PRECIOUS METALS,  
**RUNCORN, CHESHIRE.**

MAKERS OF PURE MINERAL ACIDS,  
PURE LIQUOR AMMONIA '880,

Also Standard Solutions for volumetric analysis,  
AND OTHER ARTICLES FOR LABORATORY USE.



# E. GOULD & SON,

Chemists by Appointment to the London Homœopathic Hospital,  
Manufacturers and Importers of

## HOMŒOPATHIC MEDICINES

AND

## HOMŒOPATHIC SUNDRIES OF ALL KINDS.

PRICE LISTS OF MEDICINES, MEDICINE CHESTS, &c., POST FREE TO ANY PART OF THE WORLD.

59 MOORGATE STREET, LONDON, E.C.

## HOMŒOPATHIC MEDICINES

Carefully Prepared by

J. J. WATTS & CO., WHOLESALE 11 Sugar Lane,,  
HOMŒOPATHIC CHEMISTS, MANCHESTER

1/ Medicines, Pilules, or Tinctures .. .. 3/9 per doz. nett.  
1/ Camphor Pills or Tincture .. .. 3/9 " "  
1/ Rubini's Camphor or External Remedies 4/6 " "

The Tinctures are Capsuled with Patent Metallic Capsules to prevent evaporation  
Put up in a very neat and saleable form. TERMS CASH.

## HOMŒOPATHIC MEDICINES.

THE BRISTOL AND WEST OF ENGLAND

## HOMŒOPATHIC MEDICINE SUPPLY,

37 HIGH STREET, BRISTOL.

IMPORTANT TO CHEMISTS, PATENT MEDICINE VENDORS, AND HOMŒOPATHIC MEDICINE AGENTS.

In view of the increasing demand for Homœopathic Medicines, and to remedy the present unsatisfactory system upon which Agents are supplied, the Proprietor of the BRISTOL AND WEST OF ENGLAND HOMŒOPATHIC MEDICINE SUPPLY has designed and fitted up for the special use of Agents a Cabinet containing an assortment, in bulk, of all the medicines in general use; the Cabinet, which is arranged to stand on any ordinary counter, is fitted with drawers to open from behind, and contains in top drawer 36 four-ounce bottles filled with Tinctures, and the corresponding drawer containing 36 four-ounce bottles filled with Pilules—in all, six dozen bottles and 36 kinds of Medicines of the usual strength sold by Homœopathic Chemists; the bottom drawer will contain a supply of not less than two gross of bottles, in cases, two-drachm and half ounce, clean and corked ready for filling, also a supply of labels, and not less than 100 Books or Guides to the uses of the medicines; the price of the Cabinet and contents is £5 net cash, and the advantage to the Agent will at once be seen from the fact that the same quantity of medicines, if put up in the usual way ready for sale, the invoice price from the Wholesale House to the Agent would be £18 or thereabout; another advantage to the Agent is, that he will always be in a position to refill Customers' bottles when required. Agents can have the bottles replenished at any time, or new bottles of any medicine, tincture, or pilules will be sent carriage paid at 12s. per dozen. Special quotations for Medicines, ready put up for sale, also for special and proprietary articles.

For further particulars as to terms, &c., apply to the Proprietor of the

BRISTOL AND WEST OF ENGLAND HOMŒOPATHIC MEDICINE SUPPLY,  
37 HIGH STREET, BRISTOL.

## RELIEF FROM COUGH IN TEN MINUTES.

## HAYMAN'S BALSAM OF HOREHOUND



Is the most certain and **SPEEDY REMEDY** for all **DISORDERS** of the **CHEST** and **LUNGS**. In Asthma and Consumption, Bronchitis, Coughs, Influenza, Difficulty of Breathing, Spitting Blood, Whooping Cough, Hoarseness, Loss of Voice, &c., this Balsam gives instantaneous relief, and, if properly persevered with, scarcely ever fails to effect a rapid cure. It has now been tried for many years, has an established reputation, and many thousands have been benefited by its use.

IT HAS A MOST PLEASANT TASTE.

**IMPORTANT TESTIMONIAL.**—"AMPORT FERS, ANDOVER, MAY 29, 1869.—Sir, I have for some years had your Balsam of Horehound for Mrs. B. Webster, and intended writing to tell you how much benefit she has derived. She was considered consumptive, but the Balsam has quite restored her, and she is now quite strong. I have recommended you dozens of customers, and all have been pleased with it.—I am, yours, &c., H. B. WEBSTER.  
Mr. HAYMAN, Chemist."

Mr. HORROX, Chemist, Mildenhall, writes to say :—"One of my customers says your Balsam is worth sixpence a drop."

**IN THE NURSERY** it is invaluable, as children are fond of it and take it eagerly. Immediately it is taken coughing ceases, restlessness is gone, and refreshing sleep ensues. No lady who has once tried it would ever afterwards be without it.

Prepared only by **A. HAYMAN, Chemist, Neath**; and sold by all Chemists Price 1s. 11d. and 2s. 9d. per Bottle.

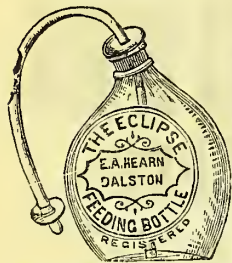
**WHOLESALE AGENTS.**—W. Sutton & Co.; Barclay & Sons; Newbery & Sons; Hovenden & Sons, 95 City Road, London; Felton Grimwade & Co., Melbourne, Elliott Brothers, Sydney and Brisbane, Australia; Kempthorne Prosser & Co. Auckland and Dunedin, New Zealand Smith, Stanistreet & Co., Calcutta.



## Feeding Bottles.

## THE "ECLIPSE."

Fitted with Boxwood or China topped Corks.



White Fittings, 30s. per best Black Fittings, per gross.

Fitted with best Screw Glass Stoppers, 6s. per gross extra. The above are put up in one dozen wood-partitioned boxes.

Spare Bottles or Fittings at lowest prices. Liberal discount to large buyers.

# HEARN, RIDDELL & CO., GLASS BOTTLE MANUFACTURERS, 381 KINGSLAND ROAD, LONDON, E.

GLASS BOTTLES of EVERY DESCRIPTION, either PLAIN or STOPPERED, made in WHITE, BLUE, AMBER, ACTINIC GREEN, or any other colour required.

SCREW NICKEL CAPPED POMADES, HONEY POTS, JELLY JARS, &amp;c., &amp;c.

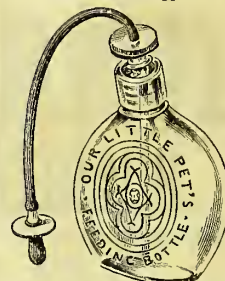
SPECIAL ATTENTION GIVEN TO QUALITY.

Quotations Post Free to any part of the world on Application.

The above will be found the BEST and CHEAPEST House in the Trade.

"OUR LITTLE PETS"  
Feeding Bottle.

Fitted with best Porcelain Caps or Screw Glass Stoppers.



White Fittings, 78s. per gross; Black Fittings, 84s per gross.

Each Bottle, with two Brushes, in handsome cardboard box, bearing our Copyright Label.

Spare Bottles or Fittings at lowest prices. Liberal discount to large buyers.

THE PROPRIETORS OF THE

## "W" BRAND DISPENSING BOTTLES

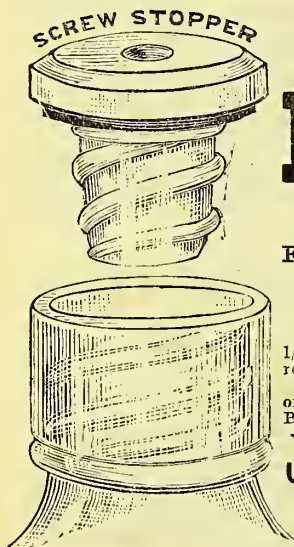
Beg to call the attention of their numerous supporters to their correct

REGISTERED TRADE MARK,



TRADE MARK.

as they learn with regret that inferior bottles have been shipped with a Mark imitating theirs. The Proprietors continue to supply their bottles only through the best London Wholesale Houses, as heretofore, and give notice that they will take action against makers using a colourable imitation of their Trade Mark.



# SIMCOCK'S GLASS SCREW STOPPERED FEEDING BOTTLES

ARE THE CLEANEST, CHEAPEST, AND BEST.

Fitted with best Black India-rubber Fittings, boxed &amp; handsomely labelled

PRICES:

6d. 1/ 1/6 each. | 3/6 7/ 9/ per dozen. | 36/ 72/ 96/ per gross.

The 6d. size are in 1-doz. wood boxes. The 1/ size are in separate card boxes with Bottle and Tube Brushes. The 1/6 size have extra length of Tubing and extra Fittings. A sample order sent for enclosure or as directed on receipt of P.O.

Ordinary "Feeders," Green Glass, Bent Neck, Boxwood Top Corks, White India-rubber Fittings, 24/ per gross, or with Black Fittings, 23/ per gross. The same with White Glass, 3/ per gross extra. If packed in 1-doz. Wood Boxes, 2/ per gross extra.

J. S. SIMCOCK, Feeding Bottle Manufacturer,  
311 GOSWELL ROAD, LONDON, E.C.

## FRENCH SCREW GLASS POTS & BOTTLES, WITH METALLIC NICKELLED CAPSULES.

The above new method (first introduced by G. V. De Luca) excels all others for neatness and elegance, and is specially adapted for export. Made in various new designs. Spécialité for Bottles for all kinds of Confectionery, Essences Manufacturer and Sundries. N.B.—Beware of imitations sold at cheap prices, the capsules being a mixture of lead or tinned iron.

Manufacturer of the GLASS POMADE POTS WITH GLASS COVERS, in Opal White and White Flint in all sizes.

G. V. DE LUCA, French Flint Glass Manufacturer, 8 and 7 Long Lane, LONDON, E.C.  
WHOLESALE AND EXPORT AGENTS—S. MAW, SON & THOMPSON, 7 to 12 ALDERSGATE STREET, LONDON, E.C.

Illustrated Catalogue for Patent Screw Capsule on application.

3 OZ., 10 OZ., 13 OZ., 20 OZ.,  
Fitted, this shape pot.



PRIZE MEDALS, INTERNATIONAL EXHIBITIONS.



LONDON, 1862.



PARIS, 1875.



PHILADELPHIA, 1876.



PARIS, 1878.



SYDNEY, 1879.



MELBOURNE 1880.

# KILNER BROTHERS,

MANUFACTURERS OF



**MINERAL WATER**

Chem-  
should  
hand a  
"OUR  
FEEDING  
One of the best selling  
Various Styles  
Green and White Glass, with

**DISPENSE**

ists  
keep on  
stock of  
"BABIES"  
BOTTLES.  
articles in the Market.  
and Prices.  
White, Brown, and Black Fittings.

**BOTTLES.**



---

F E E D I N G

---

**CHEMISTS.**

We supply GLASS BOTTLES for  
attention to our extensive  
fumery, and similar de-  
White Flint in all

A large stock of  
WOOD BOXES

*Illustrated Cata-  
Lists for-  
appli-*

**NSING**

all purposes, and invite special  
variety for Dispensing, Per-  
partments. Green and  
shapes and sizes.

ESTES' TURNED  
to choose from.

*logues and Price  
warded upon  
cation.*

**BOTTLES.**




**KILNER BROTHERS,**

No. 3 GT. NORTHERN GOODS STATION, KING'S CROSS, LONDON.



**JAMES EPPS & CO.'S**

(FIRST ESTABLISHED)

**HOMOEOPATHIC MEDICINES**

Are supplied direct or through the PATENT MEDICINE HOUSES.

Small quantities are conveniently sent by PARCEL POST.

FOR ILLUSTRATED GUIDE AND PRICES APPLY TO

**48 THREADNEEDLE STREET.****PHOTOTYPE RECESS LABELS.****THE YORK GLASS COMPANY, LTD.,**

Can now supply their RECESS LABELS with new

**PATENT PHOTOGRAPHED LETTERING,**

Adapted to their series of SHOP ROUNDS, ETHER ROUNDS, CAPPED OILS, SYRUP BOTTLES, EARTHENWARE JARS, and DRAWER LABELS.

THESE Labels present many advantages over those written by hand, as the PHOTOGRAPHIC LETTERING is much more PERFECT and REGULAR and surpasses anything of the kind which has been yet produced.

RECESS LABELS are practically INDESTRUCTIBLE and DO NOT SUFFER IN DUSTING OR CLEANING, owing to the fact that the lettering or device is placed upon the BACK of a piece of glass, which is then firmly cemented into a recess sunk in the bottle. The label is therefore effectually protected from injury by handling, or by acids or other corrosive liquids

running down the bottle. The usual pattern of recess label consists of any black phototypic letters on a white ground, which is edged with scarlet and gold, the latter picked out with black lines.

POISON BOTTLES, however, are frequently prepared with a red ground in the place of the usual white ground.

The Company will be glad to supply on application printed lists of these labels, so that intending purchasers may save themselves much trouble by marking the names of the labels required.

[FISHERGATE, YORK, NOV. 1885.]

**SHOP BOTTLES & JARS**  
**WITH VITRIFIED (burnt in) LABELS***(Black letters on a ground of pink or white enamel.)*

Narrow-mouthed and Wide-mouthed Bottles, well stoppered; Capped and Tube-stoppered Oil Bottles; Syrup Bottles, with Plug Stoppers of Dark Blue or White Opaque Glass; Lozenge Jars with Cut Glass Knobs; Cut Perfume Bottles, Round, Oval, and Square; Shop Jars of Best Porcelain, thoroughly Greaseproof. *Labels Indestructible and of elegant Appearance, forming an even surface with the Glass or Porcelain.* PRICE LIST ON APPLICATION. A Large Variety of Samples on Show at

**H. POTHS & CO.,****4 SUGARLOAF COURT, 50 LEADENHALL STREET, LONDON, E.C.**

Amongst others the following have been supplied with these Bottles and Jars:—Batho, F. G., Chiswick; Bradford & Co., Bridlington Quay; Birks, N. & W. H., Adelaide, S.A.; Breary, W. A., & Son, Douglas, Isle of Man; Brown, Alex., Dunoon, N.B.; Chandler, J. W., & Co., Bridgetown, Barbadoes; Corry, T. C. S., Dr., Belfast; Cottingham, W., Lincoln; Croyden, E. H., Newcastle-under-Lyme; Davis, Hayton, High Harrogate; Dorrivan, Richard, Blackrock, near Dublin; Durrant, G. R., Hertford; Hall, Ralph, 552 Kingsland Road, London, N.; Hill, J. B., Auckland, N. Z.; James, J., 170 New Cross Road, Camberwell; Jones & Co., Christchurch, N. Z.; Lofthouse, J., Fleetwood; Morris, Banks & Co., Birmingham; Ockenden, J., Moorfields; Philp, J., 2 Market Place, South Fulham; Roberts, D. P., Croydon, Surrey; Robinson, C. J., Streatham, London; Taylor, P. N., 14 Basinghall St., London, E.C.; Tremeer, J. J., Barnstaple; Waterall, Geo., & Sons, Nottingham; Wilson & Sons, Harrogate.

DEPOT OF THE PATENT SAFETY SAMPLE AND PARCELS POST BOX CO., LIMITED.

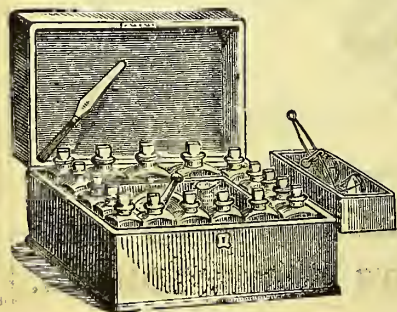
**E. BENTLEY & SONS,**

MANUFACTURERS OF

**MEDICAL GLASS, DRUGGISTS' SUNDRIES,**  
AND  
**MEDICINE CHESTS.**

Also Inventors of the New Opal Glass Pots for Dispensing, &amp;c.

ILLUSTRATED CATALOGUE ON APPLICATION.

**14 Tabernacle Street, and 1 & 2 Hill Street, Finsbury,**  
**LONDON, E.C.**



Obtained Highest Award, Calcutta Exhibition, 1884.



# BREFFIT'S



(LIMITED)

## AIRE & CALDER BOTTLE CO.

GLASS BOTTLES.

GLASSWARE SUNDRIES.

DISPENSING BOTTLES.

NEW SERIES—FLATS AND SQUARES.

SCREW STOPPERED BOTTLES

IN GREAT VARIETY.

OUR

PATENT AERATED WATER BOTTLES

OF IMPROVED MAKE AND FINISH, WITH BEST QUALITY STOPPERS AND RUBBERS, ARE NOW IN GENERAL USE.

SCREW NICKEL CAPPED POMADES,

IN WHITE GLASS, ALSO IN WHITE AND BLUE OPAL.

THE REGISTERED

“INTERNATIONAL” FEEDING BOTTLES

FITTED WITH SCREW GLASS STOPPERS.

PERFUMERY BOTTLES.

SEVERAL NOVEL AND ATTRACTIVE PATTERNS ADDED THIS MONTH.

SAMPLES, PRICES, ETC., UPON APPLICATION.

OFFICES AND EXTENSIVE SHOW ROOMS—

### 83 UPPER THAMES ST., LONDON.

(Close to Cannon Street and Mansion House Railway Station.)

Our Award at Philadelphia International Exhibition was for “Good quality and suitability to purposes.”



# TOOGOOD'S INHALERS

DR. SPENCER THOMSON'S

## ORO NASAL STEAM INHALER

(PATENTED). FIG. 317.

The advantages of this Inhaler are:—1. Simplicity and Cleanliness. 2. The application of the vapour, simple or medicated, to the membranes not only of the mouth and throat, but also of the nostrils and air passages generally. 3. Perfect ease of inhalation, contrasting with the efforts required in the use of Oral Inhalers in general.

### PRESS OPINIONS.

For the relief of Asthma, Hay Fever, &c., this Inhaler offers particular advantages.—BRITISH MEDICAL JOURNAL, October 25, 1881. It is an improvement on the old kinds.—CHEMIST AND DRUGGIST, November 15, 1884. This Inhaler has much to commend it to popular use.—KNOWLEDGE, November 23, 1884.

White Earthenware ... .. 33/- per doz.  
Le ra Cotta ... .. 48/- „

## IMPROVED ORAL INHALERS

Marbled, as Fig. 315 ... .. 22/- per doz.  
White ... .. 21/- „

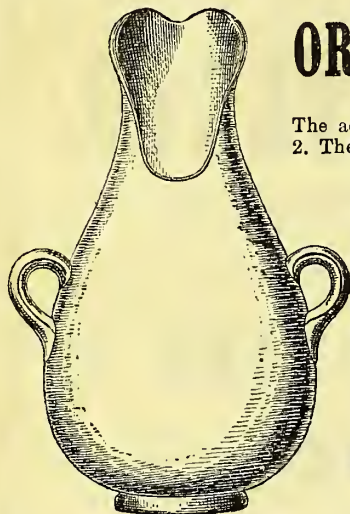


FIG. 317.

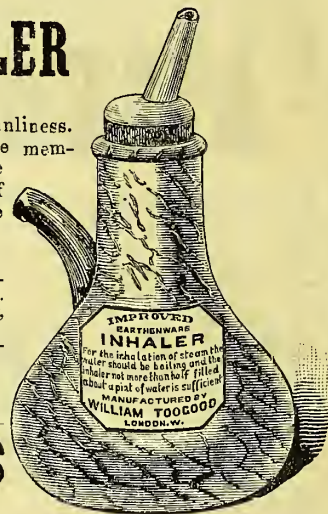


FIG. 315.

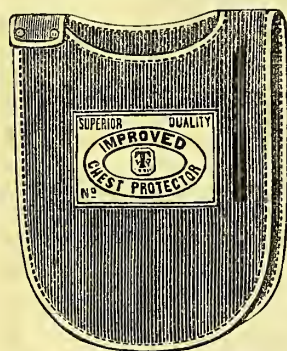


FIG. 174.

## TOOGOOD'S CHEST PROTECTORS

	No. 0	1	2	3	4	5
Dimensions ... ..	7½ × 6½	9½ × 8½	11 × 9½	13 × 10½	14 × 12	16 × 14
Chamois and flannel per doz.	7/	8/	10/6	13 6/4	16/	20/
Felt ... ..	5/	6/	9/	11/6	14/	20/

DOUBLE, for Chest and Lungs, as Fig. 174—

	No. 1	2	3	4	5
Dimensions, front ... ..	10½ × 8½	12 × 9½	13½ × 10½	14½ × 12	16 × 13½
back ... ..	11½ × 8	13½ × 9½	15½ × 10	17 × 11	18½ × 12
Chamois and flannel per doz.	20/	26/	32/	39/	48/
Felt ... ..	17/	22/6	28/	34/	45/

# TOOGOOD'S RESPIRATORS

No. 1, Nickel-plated ... ..	8/8 per doz.	No. 6, Silver-plated, very fine gauze wire front ...	30/ per doz.
„ 2, Silver-plated, gauze wire front ...	15/	„ 7, Gold-plated, perforated plate front ...	42/
„ 3, „ „ perforated plate front ...	24/	„ 8, „ „ very fine gauze wire front ...	42/
„ 4, „ „ gauze wire front ...	24/	„ 9, „ „ perforated plate front ...	42/
„ 5, „ „ perforated plate front ...	30/	Inhaler Respirator, nickel-plated ...	24/

MANUFACTURED BY

## WILLIAM TOOGOOD,

WHOLESALE GLASS BOTTLE MANUFACTURER & DRUGGISTS' SUNDRYMAN,  
35, 36, & 37 MOUNT STREET, GROSVENOR SQUARE, LONDON, W.

WILLIAM TOOGOOD'S REVISED PRICE CURRENT of Glass Bottles, Measures, Earthenware, Druggists' Sundries, &c., will be forwarded post free upon application.

SPECIAL ATTENTION GIVEN TO SHIPPING ORDERS.



# TOOGOOD'S

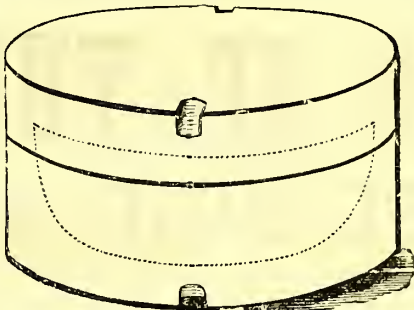
## NEW REGISTERED

# EARTHENWARE COVERED POTS

ARE CLAIMED TO BE THE MOST PERFECT AND CONVENIENT YET OFFERED TO THE TRADE, AND POSSESS THE FOLLOWING ADVANTAGES:—

1st.—An India-rubber Band passed vertically over the pot is kept in its place by the notches, and effectually secures the lid; for travelling this supplies a want greatly needed.

2nd.—The Covers being made quite flat, labels can be affixed with ease, and without creasing.



3rd.—The inside of the Pots being rounded or egg-shape, the contents can be entirely removed without waste.

4th.—Great attention has been paid to insure accuracy of contents.

PRICES. {  $\frac{1}{8}$ /-  $\frac{1}{8}$ /-  $\frac{1}{8}$ /-  $\frac{3}{4}$ /- 1/- 1 $\frac{1}{2}$ /- 2/- 3/- 4/- 6/- 8 oz. 66/- per Gross.



## THE WESTMINSTER FEEDING BOTTLE.

(SCREW GLASS STOPPER.)

THE 1s. WHITE GLASS—

WHITE FITTINGS, 7/6; BLACK FITTINGS, 8/6 DOZ.

THE 6d. GREEN GLASS—

WHITE FITTINGS, 4/-; BLACK FITTINGS, 4/9 DOZ.

## DR. BELL'S EUCALYPTUS ANTI-CATARRH

OR,

## HAY FEVER SMELLING BOTTLE.

RETAIL, 1/1 $\frac{1}{2}$ ; WHOLESALE, 9/- DOZEN.

MANUFACTURED BY

### WILLIAM TOOGOOD,

WHOLESALE GLASS BOTTLE MANUFACTURER & DRUGGISTS' SUNDRYMAN,  
35, 36, & 37 MOUNT STREET, GROSVENOR SQUARE, LONDON, W.

WILLIAM TOOGOOD'S REVISED PRICE CURRENT of Glass Bottles, Measures, Earthenware, Druggists' Sundries, &c., will be forwarded free on application.  
SPECIAL ATTENTION GIVEN TO SHIPPING ORDERS.



DR. JOHN FRANCIS CHURCHILL'S INHALANT  
**SPIRONE**

FOR THE TREATMENT AND CURE OF ALL

**DISEASES OF THE LUNGS,  
 WINDPIPE, NOSE, & THROAT,**

Claims to be a Specific for all Congestive and Inflammatory conditions of the Respiratory Apparatus, and will be found efficacious in

**COUGHS & COLDS, ASTHMA, BRONCHITIS,**

Inflammation and Congestion of the Lungs, Pneumonia, Pleurisy, Whooping Cough, Croup, Diphtheria, Pharyngitis, Laryngitis, Catarrh, Sore Throat, Quinsy, Enlarged Tonsils, Hoarseness, Loss of Voice, Colds in the Head, Hay Fever, and all other Complaints of the Respiratory Organs.

PREPARED ONLY BY THE INVENTOR.

None Genuine except such as bears his Signature upon the Bottle, on the Label over the cork, and on the Wrapper,

**JOHN FRANCIS CHURCHILL, M.D. (Paris),**

*The Discoverer of the Specific Cure for Consumption, and of the Medical Properties of the Hypophosphites.*

Price 4s. 6d. and 11s. per bottle.

SET OF APPARATUS FOR ADMINISTRATION, 15/.

**THE DR. JOHN FRANCIS CHURCHILL'S INHALANT COMPANY,  
 LIMITED,**

Depot—17A Duke St., Manchester Square, LONDON, W.



# MAW'S EARTHENWARE INHALERS

For Hot Water, Infusions, &c.

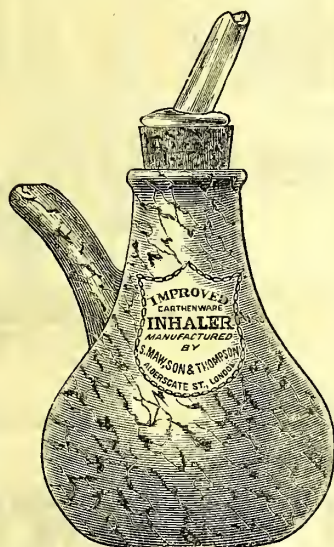


FIG. 8.

MAW'S IMPROVED.



FIG. 13.

ELASTIC TUBE.



FIG. 100.

MAW'S INVALID.

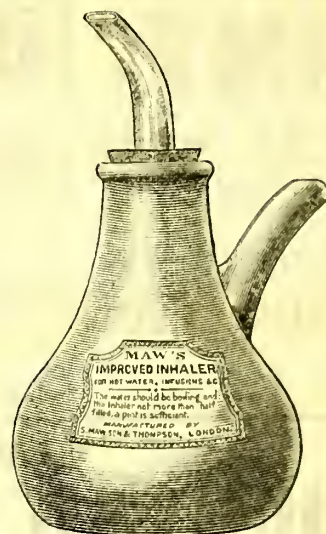


FIG. 8a.

MAW'S IMPROVED.

**Fig. 8:—Marbled, 32s. per dozen.**

**Fig. 100:—White, 33s.; Gilt Lines, 39s. per doz.**

This Pattern is specially adapted for use in bed.

**Fig. 8a:—White, 21s. per doz.; Retail, 2s. 6d. each.**

**ELASTIC TUBES, as Fig. 13, will fit any of the above.**

7 inches long, including Mouth-pieces ...	...	...	...	...	8s. per dozen.
9 inches long, including Mouth-pieces ...	...	...	...	...	12s. per dozen.

MANUFACTURED BY

## S. MAW, SON & THOMPSON, LONDON.



Woven in widths, and not torn from Calico, like ordinary bandages. These Bandages are possessed of great strength, are elastic, light, and porous. They are woven with a soft selvedge on either side, which cannot fray (like a torn bandage); they expand equally with the middle, and will not *cut* in the least degree, the pressure being even throughout. For all surgical purposes these bandages are superior to the old kinds, such as Plaster of Paris, on account of the openness of the texture.

Wholesale Druggists & Manufacturing Chemists, **LONDON.**  
16 COLEMAN STREET,

[See pages 17, 28, 76, 107, 128, 154, 158.]

**A. de ST. DALMAS, LEICESTER.**  
Formerly MOOR.

TRADE MARK.

1. In cost it is less expensive.
2. It is warm and light, and well adapted for a camp or field-bed, being ereproof.
3. It is quickly filled and easily adjusted.
4. It admits of ventilation in the space between the tubes.
5. It can be regulated so as to relieve pressure from any part desired.
6. By the addition of tubes it will raise one part of the body higher than the rest.
7. By the temporary removal of one or two tubes it affords room for introduction of a bed-pan.

8. It can be inclined to any angle (even when filled with water) to suit the condition of the patient.
9. It is free from noise and snrging, so disagreeable to the invalid on changing his position on a water-bed.
10. In case of injury to a tube it can be withdrawn, and a fresh one substituted at a trifling cost, and without loss of time; whereas the ordinary water-bed if injured in any part (from being in one compartment) is rendered useless.
11. In the treatment of insane or paralysed invalids who have no control over their evacuations, they cannot lie in a pool of wet, the fluid passing away between the tubes.



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## POROUS



# PLASTERS ON FELT.

The Proprietors have much pleasure in calling the attention of the Trade to the above, which possess the following advantages, and are sure to command a large sale:—

They Soil the Clothing less than any other Plaister—an important point in the case of Belladonna.

They are more comfortable to wear, are more sightly, and adhere as well as any Plaster.

They are Porous—hence ventilating, and being of red felt are at the same time exceptionally warm.

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ARE SUPPLIED AS FOLLOWS, EITHER HEART OR LONG SHAPE:—

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Roborans and Strengthening ...	1/10	2/6	3/9	5/8 doz.	} HEART OR LONG SHAPE.
Belladonna and Capsicum .....	2/6	3/9	5/8	7/6 ,,	

SAMPLES CAN BE HAD ON APPLICATION.

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The ONLY MEDICINE of the KIND AWARDED A CERTIFICATE of MERIT at the CALCUTTA INTERNATIONAL EXHIBITION, 1883-4,

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The superior quality of NEWSOME'S ABSORBENT SURGEONS' LINT is universally admitted.  
The V.B. Quality is quite pure and of great superficial area and exquisite softness.  
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Splint, Ring & Side bone, Spavin,  
ALL  
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**An Infallible Cure for Splint, Ring  
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Truly yours, JOHN PORTER.**OSSIDINE.**Price, 5s. 6d. and 10s. 6d. per 4 oz. and  
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**BEDFORDSHIRE  
PIG POWDERS**Chemists can have space on Handbills for own speciality,  
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THIS CELEBRATED BLISTER IS NOW OFFERED TO THE TRADE AT THE FOLLOWING REDUCED PRICES:—  
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100 Rats destroyed for a Shilling by

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WRAPPED NEATLY FOR THE COUNTER.

Handsome, attractive Posters supplied; if conspicuously placed will command constant sale.

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THE DEAD VERMIN  
DRY UP  
WITHOUT SMELL.



Guaranteed the best  
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the world.

3d., 6d., 1s., 2s. 6d., and 5s. Tins. Also

**BARBER'S VERMIN KILLER,**

In 1d., 2d., 3d., 6d., and 1s. Packets. Kills Mice npo the spot.

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FOR WASHING ALL KINDS OF DOGS.

It effectually cleanses the skin and renders the coat fine and glossy. It destroys fleas, &amp;c., and thoroughly cures the mange and other skin diseases. From its medicated and detergent properties it is by far the best article in the market.

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[See pages 17, 28, 76, 107, 128, 152, 154.]

**BATTLE'S VERMIN KILLER.** { Mice eat it readily, and Die on the spot.

Has an immense Sale, and wherever introduced never fails to give satisfaction. Mice appear attracted to it as by magic, eat it readily, tumble over, and die on the spot. Rats usually die in their runs. Parties troubled with Vermin may be cleared at once, either from Stacks, Houses, or Ships.

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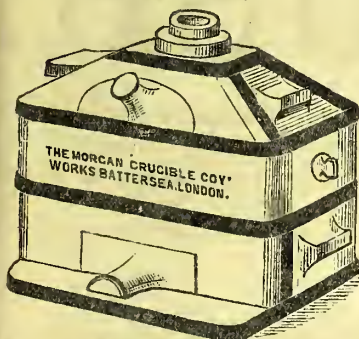
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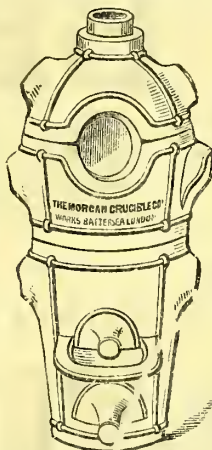
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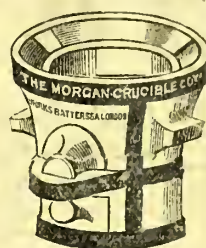
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1 ..	44 in.	2 6
2 ..	54 "	3 6
3 ..	64 "	4 6
4 ..	84 "	6 0
5 ..	10 "	8 0
6 ..	10½ "	12 0
7 ..	11½ "	15 0
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SINGLE TRUSSES, 12/- DOZ.; DOUBLE DO., 21/- DOZ.

N.B.—All my Trusses are made exact shape to the body, and made from Best Sheffield Steel. For quality and price they are unequalled.

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MULLEIN CIGARETTES (Patented) for Asthmatic Affections.

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A Small Compass accompanies each Brush, so that the presence of the Electric current can easily be tested by passing the Brush around it.

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detected by the Ribs on the  
Surface, and are always  
liable to split.****WARRANTED NOT TO SPLIT.****A.—Metal Pin Valve.****INGRAM'S IMPROVED PATENT SEAMLESS ENEMA** is perfectly smooth on the surface, will not become hard or sticky, will not leak, and will not admit air while injecting or refilling. Specially prepared to resist the heat of tropical countries.The great superiority of **INGRAM'S IMPROVED PATENT SEAMLESS ENEMA** over all others has given rise to **VARIOUS IMITATIONS**, and it has become imperative that the Patentees should, in order to **PREVENT DECEPTION**, explain the **PROCESS OF MANUFACTURE OF THEIR ENEMA** and the **MODE OF MANUFACTURE OF IMITATIONS** thereof, as they have **UNDENIABLE PROOF** that **INFERIOR ENEMAS** are positively **BEING SOLD** as their "**ADVERTISED**" **PATENT SEAMLESS ENEMA**.**INGRAM'S IMPROVED PATENT SEAMLESS ENEMA** is made by a **NEW PATENT PROCESS**, viz.: By repeated dipping in a solution of India Rubber until the required substance is attained. This process adds greatly to its **STRENGTH AND DURABILITY**, and, at the same time, dispenses with **ALL SEAMS**, which, as is well known, are weak points in an Enema. This improved mode of manufacture (the result of long study and experience) enables the Patentees to produce a **PERFECT ENEMA WITHOUT SEAMS**, thus overcoming the great fault to be found in **ALL other Enemas**, viz.: **SPLITTING AND LEAKING**, which has always been a source of trouble.**INGRAM'S IMPROVED PATENT SEAMLESS ENEMA** is fitted with **IMPROVED VALVES**, which prevent the admission of air with the fluid and **CAN** at any time **BE REPAIRED**, if necessary.**CAUTION.**—Imitations of **INGRAM'S IMPROVED PATENT SEAMLESS ENEMA** are made of several pieces of Sheet India Rubber, which are cemented together and shaped in a mould, thus **PRODUCING RIBS ON THE SURFACE**, and **ENEMAS SO MANUFACTURED ARE ALWAYS LIABLE TO SPLIT AND LEAK AT THE SEAMS**, and thus to become quite useless.**INGRAM'S IMPROVED PATENT SEAMLESS ENEMA** may be distinguished from **ALL IMITATIONS** by its **ENTIRE FREEDOM FROM RIBS OF ANY DESCRIPTION** on its surface, and by having an **IMPROVED METAL PIN VALVE** at the suction end **A**; and it is acknowledged to be the **ONLY PERFECT ENEMA OBTAINABLE**.

Patented in England, No. 1474, April 12, 1878; in France, No. 126,909, October 11, 1878; and in America, No. 212,939, March 4, 1879.

*To be obtained of all Surgical Instrument Makers, Druggists' Sundriesmen, Chemists and Druggists, in the three following qualities:—***No. 1a. Highly Polished, in Red, Green, Blue, Black, or White.****No. 1b. Unpolished, in Red, Green, Blue, Black, or White.****No. 2. Unpolished, in Drab only.***Favourably noticed in "British Medical Journal," December 13, 1879; in the "Lancet," January 3, 1880; and in "British Medical Journal," September 30, 1882.*



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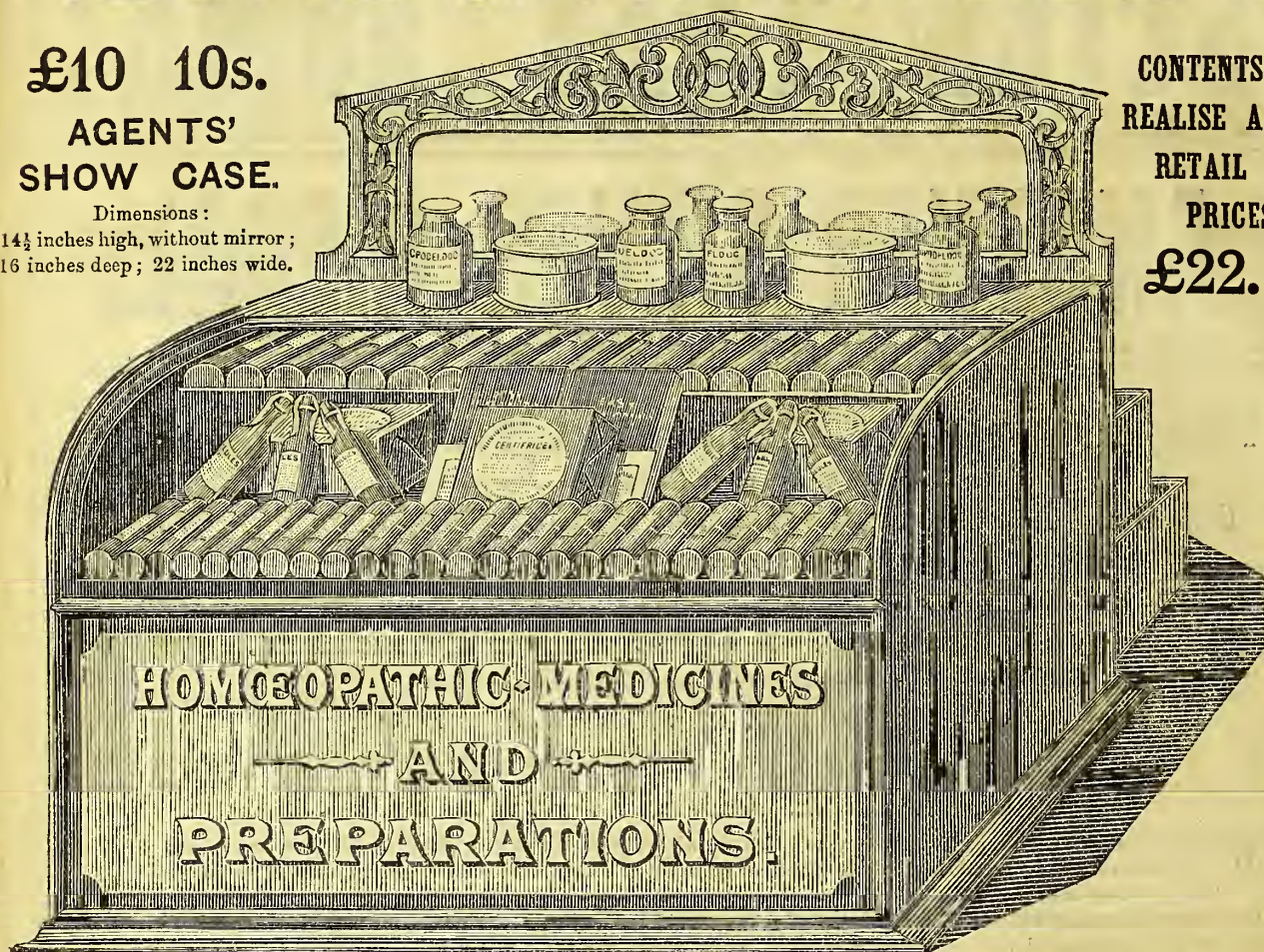
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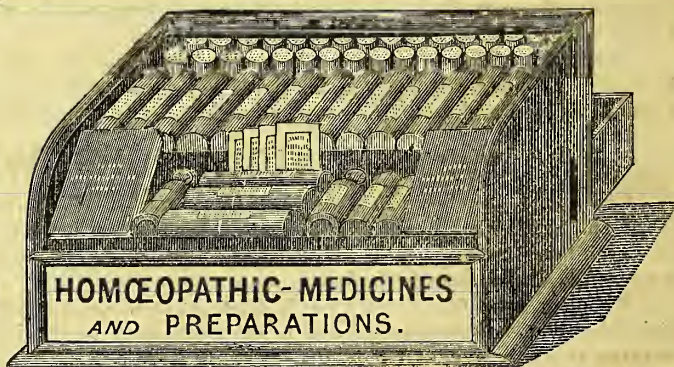
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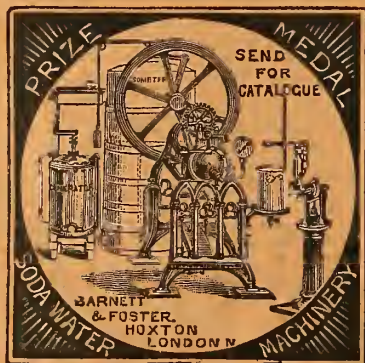
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